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THE UPCOMING REQUEST FOR PROPOSAL FOR THE
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Agenda
Pre-Proposal Conference
2006 – 2007 Maintenance Dredging Port of Anchorage
Anchorage, Alaska
Solicitation # W911KB-05-R-0003
October 18, 2005

Meeting Place: U. S. Army Corps of Engineers, Seattle District
4735 East Marginal Way South
Seattle, Washington 98134-2329

0900 – 0915	Welcome and Introductions	Bob Parry/Kim Kuk
0915 – 0930	Meeting Objectives and Process	Sandra Davidson/ Christine Dale
0930 - 1015	Port of Anchorage Overview Historical Dredging Quantities	Kim Kuk
1015 – 1030	Break	
1030 - 1100	Hydrodynamics of Knik Arm	Allen Churchill
1100 – 1130	Historical Shoaling Patterns	Kim Kuk
1130 – 1200	Past Dredging Methods Clamshell and Hopper	Ron Flodin
1200 – 1300	Lunch	
1300 – 1330	Current Dredging Requirements & Surveys	Kim Kuk
1330 – 1445	Industry/Corp Discussions Contract Type & Solicitation Info Equipment Innovative Dredging Methods	Christine Dale Ron Flodin Kim Kuk
1445 – 1500	Questions and Answers	Kim Kuk
1500	Adjourn	

Directions to Seattle District:

From the north:

Take I-5 south to James Street; turn right on Columbia and follow road down to the viaduct/Hwy. 99 south; street turns into E. Marginal Way S.; Federal Center South will be on the right.

From the south:

Take I-5 north to exit #162 (on left), Corson/Michigan St.; go to Michigan and turn right and follow to E. Marginal Way S./Hwy. 99; turn right and follow several blocks; Federal Center South will be on the left.

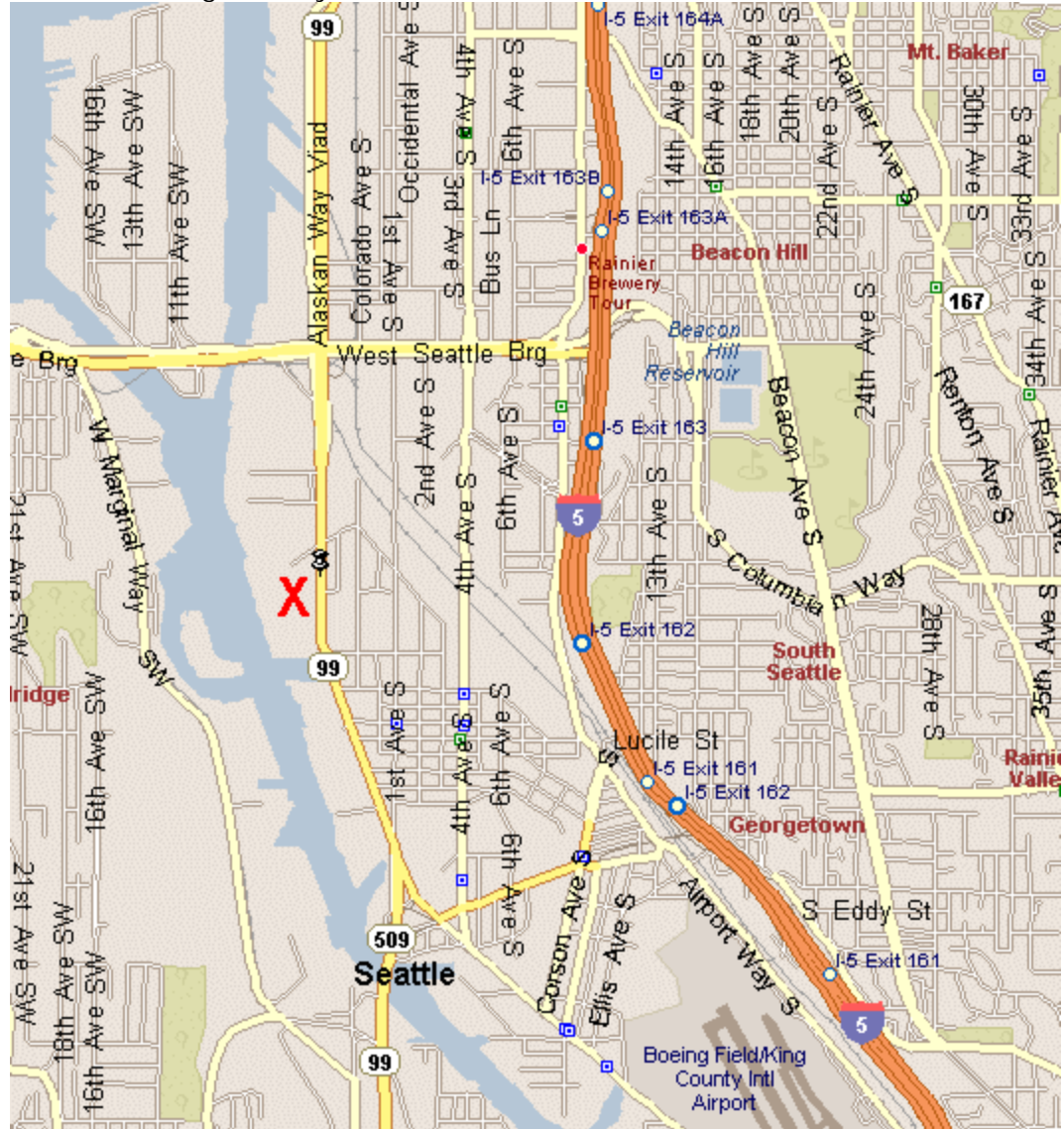
[You can find our office on this map.](#)



US Army Corps
of Engineers ®

Welcome to the Seattle District

4735 East Marginal Way South, Seattle WA 98124-3755

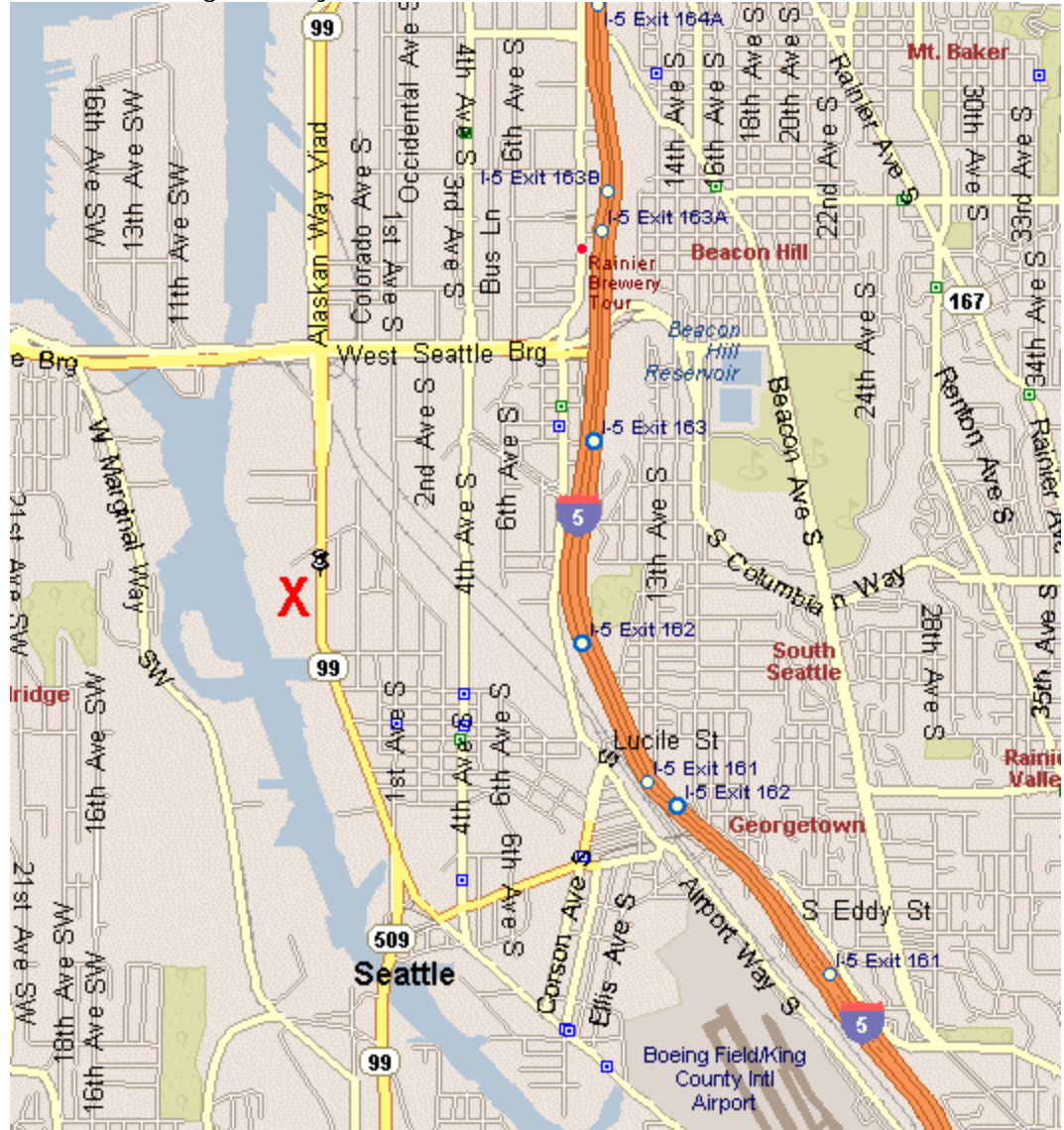




US Army Corps
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Welcome to the Seattle District

4735 East Marginal Way South, Seattle WA 98124-3755



W911KB-05-R-0003

PROPOSAL DOCUMENTS

2006 – 2007 MAINTENANCE DREDGING

PORT OF ANCHORAGE

ANCHORAGE, ALASKA

**SOLICITATION, OFFER, AND AWARD
SUPPLIES OR SERVICES AND PRICE COSTS
CONSTRUCTION SPECIFICATIONS/STATEMENT OF WORK
INSPECTION AND ACCEPTANCE
SPECIAL CONTRACT REQUIREMENTS
CONTRACT CLAUSES
LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS
REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS
INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS
EVALUATION FACTORS FOR AWARD**

NOVEMBER 2005

OPEN TO LARGE AND SMALL BUSINESS



**U.S. ARMY ENGINEER DISTRICT, ALASKA
CORPS OF ENGINEERS
P.O. BOX 898
ANCHORAGE, ALASKA 99506-0898**



INCREASE PROFIT



SUBMIT VE CHANGE

BIDDING SCHEDULE
2006 - 2007 MAINTENANCE DREDGING
PORT OF ANCHORAGE, ALASKA

Item No.	Description	Quantity	Unit	Unit Price	Amount
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BASE ITEMS (2006)

0001.	Bid, Performance, and Payment Bond Cost, 2006, complete	1	Job	Lump Sum	\$ _____
0002.	Mobilization and Demobilization, 2006, complete				
0002AA.	Hopper Dredge	1	Job	Lump Sum	\$ _____
0002AB.	Clamshell Dredge	1	Job	Lump Sum	\$ _____
0003.	Hopper Dredging and Disposal, 2006, complete				
0003AA.	First 500,000 CY	500,000	CY	\$ _____	\$ _____
0003AB.	All Over 500,000 CY	500,000	CY	\$ _____	\$ _____
0004.	Clamshell Dredging and Disposal, 2006, complete				
0004AA.	First 500,000 CY	500,000	CY	\$ _____	\$ _____
0004AB.	All Over 500,000 CY	500,000	CY	\$ _____	\$ _____
0005.	Pre-Dredge, Post-Dredge, and Intermediate Hydrographic Surveys, 2006, complete	63	EA	\$ _____	\$ _____

Total of Base Items (0001 thru 0005) for 2006: \$ _____

OPTIONAL ITEM (2006)

0006.	Optional Partnering Session, complete	1	Job	Lump Sum	\$ _____
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Total of Optional Item (0006) for 2006: \$ _____

BIDDING SCHEDULE
2006 - 2007 MAINTENANCE DREDGING
PORT OF ANCHORAGE, ALASKA

Item No.	Description	Quantity	Unit	Unit Price	Amount
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Total of Base plus Optional Items (0001 thru 0006)
for 2006: \$_____

OPTIONAL ITEMS (2007)

0007.	Optional Bid, Performance, and Payment Bond Cost, 2007, complete	1	Job	Lump Sum	\$_____
0008.	Optional Mobilization and Demobilization, 2007, complete				
0008AA.	Hopper Dredge	1	Job	Lump Sum	\$_____
0008AB.	Clamshell Dredge	1	Job	Lump Sum	\$_____
0009.	Optional Hopper Dredging and Disposal, 2007, complete				
0009AA.	First 500,000 CY	500,000	CY	\$_____	\$_____
0009AB.	All Over 500,000 CY	500,000	CY	\$_____	\$_____
0010.	Optional Clamshell Dredging and Disposal, 2007, complete				
0010AA.	First 500,000 CY	500,000	CY	\$_____	\$_____
0010AB.	All Over 500,000 CY	500,000	CY	\$_____	\$_____

BIDDING SCHEDULE
2006 - 2007 MAINTENANCE DREDGING
PORT OF ANCHORAGE, ALASKA

Item No.	Description	Quantity	Unit	Unit Price	Amount
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0011.	Optional Pre-Dredge, Post-Dredge, and Intermediate Hydrographic Surveys, 2007, complete	65	EA	\$ _____	\$ _____
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Total of Optional Item (0007 thru 0011) for 2007: \$ _____

Total of Base plus Optional Items (0001 thru 0011): \$ _____

EVALUTIONS OF OFFERS.

1. AWARD: Award will be made in accordance with Section 00120 - EVALUATION FACTORS FOR AWARD.

2. INCOMPLETE PROPOSALS: Failure to submit an offer on all items in the schedule will result in an incomplete offer and the offer will be rejected. Unit or lump sum prices must be shown for each item within the schedule.

3. EXTENSIONS: All extensions of the unit prices shown will be subject to verification by the Government. In case of variation between the unit price and the extension, the unit price will be considered to be the offer.

4. SPECIAL BID CONDITION: If a modification to an offer based on unit prices is submitted which provides for a lump sum adjustment to the total offered price, the application of the lump sum adjustment to each unit price in the proposal schedule must be stated. If it is not stated, the offeror agrees that the lump sum adjustment shall be applied on a pro rata basis to every unit price in the proposal schedule.

5. EVALUATION OF OPTIONS (FAR 52.217-0005 JUL 1990): The Government will evaluate offers for price purposes by adding the total price of all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the options.

6. The Government anticipates award of Optional Items as follows:

- (a) CLIN 0006, in whole or in part, or not at all, but not later than February 15, 2006.
- (b) CLINS 0007 thru 0011, in whole or in part, or not at all, but not later than February 15, 2007.

-- End of Proposal Schedule --

DRAFT

SECTION 00800 - INDEX

SPECIAL CONTRACT REQUIREMENTS

CLAUSE	TITLE		PAGE
SCR-1	COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK (See Section 0700, FAR 52.212-0003)		SCR-1
SCR-2	EXCLUSION OF PERIODS IN COMPUTING COMPLETION SCHEDULES	NOT USED	SCR-1
SCR-3	LIQUIDATED DAMAGES-CONSTRUCTION (See Section 0700, FAR 52.211-0012)		SCR-1
SCR-4	TIME EXTENSIONS	NOT USED	SCR-1
SCR-5	CONTRACT DRAWINGS, EXHIBITS AND SPECIFICATIONS (See Section 0700, DFAR 252.236-7001)		SCR-1
SCR-6	RESERVED	NOT USED	SCR-1
SCR-7	CERTIFICATES OF COMPLIANCE	NOT USED	SCR-1
SCR-8	SUBMITTALS	NOT USED	SCR-1
SCR-9	IDENTIFICATION OF GOVERNMENT-FURNISHED PROPERTY (See Section 0700, FAR 52.245-0003)		SCR-1
SCR-10	ANCHORAGE PHYSICAL DATA		SCR-1
SCR-11	AVAILABILITY AND USE OF UTILITY SERVICES	NOT USED	SCR-1
SCR-12	IDENTIFICATION OF EMPLOYEES	NOT USED	SCR-1
SCR-13	INSURANCE - WORK ON A GOVERNMENT INSTALLATION (See Section 0700, FAR 52.228-0005)		SCR-1
SCR-14	SPECIAL SAFETY REQUIREMENTS		SCR-1
SCR-15	AIRFIELD SAFETY PRECAUTIONS	NOT USED	SCR-2
SCR-16	LAYOUT OF WORK	NOT USED	SCR-2
SCR-17	QUANTITY SURVEYS	NOT USED	SCR-2
SCR-18	APPROVED AGGREGATE SOURCES	NOT USED	SCR-2
SCR-19	HAUL ROADS	NOT USED	SCR-2
SCR-20	CONTRACTOR-PREPARED NETWORK ANALYSIS SYSTEM	NOT USED	SCR-2

CLAUSE	TITLE		PAGE
SCR-21	PERFORMANCE OF WORK BY CONTRACTOR	NOT USED	SCR-2
SCR-22	SALVAGE MATERIALS AND EQUIPMENT	NOT USED	SCR-2
SCR-23	OBSTRUCTION OF NAVIGABLE WATERWAYS (See Section 0700, DFAR 252.236-7002)		SCR-2
SCR-24	SIGNAL LIGHTS		SCR-2
SCR-25	COMMUNICATION SECURITY		SCR-2
SCR-26	PERMITS AND RESPONSIBILITIES	NOT USED	SCR-3
SCR-27	SUPERINTENDENCE OF SUBCONTRACTORS	NOT USED	SCR-3
SCR-28	PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (See Section 0700, DFAR 252.236-7004)		SCR-3
SCR-29	EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (See Section 0700, EFAR 52.231-5000)		SCR-3
SCR-30	OPTION FOR INCREASED QUANTITY (See Section 0700, FAR 52.217-0006)		SCR-3
SCR-31	WORK IN QUARANTINED AREA	NOT USED	SCR-3
SCR-32	PRESERVATION OF HISTORICAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES	NOT USED	SCR-3
SCR-33	PAYMENT FOR MATERIALS DELIVERED OFF-SITE	NOT USED	SCR-3
SCR-34	RESERVED	NOT USED	SCR-3
SCR-35	RESERVED	NOT USED	SCR-3
SCR-36	TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER	NOT USED	SCR-3
SCR-37	NONDOMESTIC CONSTRUCTION MATERIALS	NOT USED	SCR-3
SCR-38	YEAR 2000 COMPLIANCE (See Section 0700, FAR 39.106)		SCR-3
SCR-39 THRU SCR-44		NOT USED	SCR-3
SCR-45	SAFETY AND HEALTH REQUIREMENTS MANUAL EM 385-1-1, U.S. ARMY CORPS OF ENGINEERS		SCR-3
SCR-46 THRU SCR-99		NOT USED	SCR-3

CLAUSE	TITLE		PAGE
SCR-100	CONTINUING CONTRACTS (See Section 0700, EFAR 52.232-5002)		SCR-3
SCR-101	DAMAGE TO WORK		SCR-3
SCR-102	PLANT LAYOUT DRAWINGS	NOT USED	SCR-3
SCR-103	ADDITIONAL REQUIREMENTS FOR RAILROAD PROTECTION	NOT USED	SCR-3
SCR-104	CONTINUITY OF WORK		SCR-3
SCR-105	INSPECTION	NOT USED	SCR-3
SCR-106	FINAL EXAMINATION AND ACCEPTANCE	NOT USED	SCR-3
SCR-107	SHOALING		SCR-4
SCR-108	ACCOMMODATIONS AND MEALS FOR INSPECTORS	NOT USED	SCR-4
SCR-109	USE OF EXPLOSIVES	NOT USED	SCR-4
SCR-110	VARIATIONS IN ESTIMATED QUANTITIES (See Section 0700, FAR 52.211-0018)		SCR-4
SCR-111	VARIATIONS IN ESTIMATED QUANTITIES - SUBDIVIDED ITEMS (See Section 0700, EFAR 52.212-5001)		SCR-4
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SCR-113	ENVIRONMENTAL LITIGATION		SCR-4
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SECTION 00800

SPECIAL CONTRACT REQUIREMENTS

SCR-1 THRU SCR-9 NOT USED

SCR-10 ANCHORAGE PHYSICAL DATA (APR 1984):

Information and data furnished or referred to below are furnished for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) Physical Conditions. The indication of physical conditions on the drawings or in the specifications are the result of site investigation and surveys.

(b) Weather Conditions. Weather conditions for Anchorage are available at the National Oceanic and Atmospheric Administration Office in Anchorage, Alaska. Each bidder should satisfy himself before submitting his bid as to hazards likely to arise from weather conditions.

(c) Transportation Facilities.

(1) Water. Anchorage is a port of call for scheduled and unscheduled commercial and military deep and shallow draft vessels in the Alaska trade.

(2) Air. Scheduled and charter commercial airline service is available from airports at Anchorage.

(3) Land. Anchorage is connected to the primary and secondary state highway system and is accessible from the lower 48 states via the Alaska Highway.

(4) Railroad. The Alaska Railroad offers freight service from the 48 contiguous states and Canada via rail barge and trainship through Whittier, and from Seward, to Anchorage and Fairbanks. In addition to the freight service, scheduled passenger service and express service between Anchorage and Fairbanks, and passenger service between Anchorage and Whittier are also available. Fairbanks (including Eielson Air Force Base and Fort Wainwright) is the northern terminus, and Seward and Whittier are the southern terminals of the Alaska Railroad.

(d) Communication. Long distance communication service to and from all areas is available through the local commercial communications system. The Contractor shall make all arrangements for required communication service directly with the local communications office serving the area. The Contracting Officer does not guarantee the adequacy or efficiency of the service or the number of telephones that can be assigned to the Contractor.

(e) Weather Data. A CLIMATOLOGICAL SUMMARY for Anchorage is attached at the end of this section.

SCR-11 THRU SCR-13 NOT USED

SCR-14 SPECIAL SAFETY REQUIREMENTS:

The Safety and Health Requirements Manual referenced in paragraph Accident Prevention of the Contract Clauses is amended as indicated below. Copies of the manual can be ordered from the Superintendent of Documents, Government Printing Office, Washington DC, phone (202) 512-1800, FAX (202) 512-2250.

- a. Not used.
- b. Not used.
- c. Paragraph 16.C: Add new paragraphs 16.C.21 and 16.C.22.

16.C.21. During personnel handling operations, load and boom hoist drum brakes, swing brakes, and locking devices such as pawls or dogs shall be engaged when the occupied platform is in a stationary working position.

16.C.22. During personnel handling operations, the load hoist drum shall have a system or device on the power train other than the load hoist brake, which regulates the lowering rate of speed of the hoist mechanism (controlled load lowering). Free fall is prohibited.

- d. All floating plants with a grounded electrical system shall have GFCI protection on all outlets.
- e. Use of Type III or Type V Manual and Manual-Auto Inflatable Personal Flotation Devices (PFD's) is not allowed.

SCR-15 THRU SCR-16 NOT USED

Refer to Technical Specification Section 01016, SPECIAL ITEMS.

SCR-18 THRU SCR-23 NOT USED

SCR-24 SIGNAL LIGHTS:

The Contractor shall display signal lights and conduct its operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed; vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as set forth in Commandant U.S. Coast Guard Instruction M16672.2, Navigation Rules: International-inland (COMDTINST M16672.2) of 33 CFR 81 Appendix A (International) and 33 CFR 84 through 33 CFR 89 (Inland) as applicable.

SCR-25 COMMUNICATION SECURITY:

All communications with DOD organizations are subject to COMSEC review. Contractor personnel shall be aware that telecommunications networks are continually subject to intercept by unfriendly intelligence organizations. The DOD has authorized the military departments to conduct COMSEC monitoring and recording of telephone calls originating from or terminating at DOD organizations. Therefore, civilian Contractor personnel are advised that any time they place a call to or receive a call from Alaska District offices or Resident Engineer offices located on military installations, they are subject to COMSEC procedures. The Contractor will assume the responsibility for ensuring wide and frequent dissemination of the above information to all employees dealing with official DOD information.

SCR-26 THRU 44 NOT USED

SCR-45 SAFETY AND HEALTH REQUIREMENTS MANUAL, EM 385-1-1, U.S. ARMY CORPS OF ENGINEERS:

EM 385-1-1 and its changes are available at <http://www.hq.usace.army.mil> (at the HQ homepage, select Safety and Occupational Health).

The Contractor shall be responsible for complying with the current edition and all changes posted on the web (see web address above) as of the effective date of this solicitation and shall comply with the version in effect on the contract award date. This EM 385-1-1 shall remain in effect throughout the life of the contract.

SCR-46 THRU SCR-100 NOT USED

SCR-101 DAMAGE TO WORK:

The responsibility for damage to any part of the permanent work shall be as set forth in the clause of the contract entitled "Permits and Responsibilities". However, if, in the judgment of the Contracting Officer, any part of the permanent work performed by the Contractor is damaged by flood or earthquake, which damage is not due to the failure of the Contractor to take reasonable precautions or to exercise sound engineering and construction practices in the conduct of the work, the Contractor shall make the repairs as ordered by the Contracting Officer and full compensation for such repairs will be made at the applicable contract unit or lump sum prices as fixed and established in the contract. If, in the opinion of the Contracting Officer, there are no contract unit or lump sum prices applicable to any part of such work an equitable adjustment pursuant to Clause, "Changes", of the contract, will be made as full compensation for the repairs of that part of the permanent work for which there are no applicable contract unit or lump sum prices. Except as herein provided, damage to all work (including temporary construction), utilities, materials, equipment and plant shall be repaired to the satisfaction of the Contracting Officer at the Contractor's expense, regardless of the cause of such damage.

SCR-102 AND SCR-103 NOT USED

SCR-104 CONTINUITY OF WORK:

No payment will be made for work done in any area designated by the Contracting Officer until the full depth required under the contract is secured in the whole of such area, unless prevented by ledge rock, nor will payment be made for excavation in any area not adjacent to and in prolongation of areas where full depth has been secured except by decision of the Contracting Officer. Should any such nonadjacent area be excavated to full depth during the operations carried on under the contract, payment for all work therein may be deferred until the required depth has been made in the

area intervening. The Contractor may be required to suspend dredging at any time when for any reason the gages or ranges cannot be seen or properly followed.

SCR-105 AND SCR-106 NOT USED

SCR-107 SHOALING:

Refer to Technical Specification Section 01016, SPECIAL ITEMS.

SCR-108 THRU SCR-112 NOT USED

SCR-113 ENVIRONMENTAL LITIGATION:

(a) If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the "Suspension of Work" clause of this contract. The period of such suspension, delay or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

(b) The term "environmental litigation", as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

SCR-114 NOT USED

ATTACHMENT - CLIMATOLOGICAL SUMMARY FOR ANCHORAGE

--End of Special Contract Requirements--

CLIMATOLOGICAL SUMMARY

ANCHORAGE, ALASKA

MEANS AND EXTREMES FOR PERIOD OF RECORD

Temperature (°F)	Mean Annual	35° F	
	Highest Recorded	86° F	Jun 1953
	Lowest Recorded	-38° F	Feb 1947
	Maximum Freezing Index	3278° Days	1955-1956
	Maximum Thaw Index	3836° Days	1957
Precipitation (inches)	Mean Annual	14.74"	
	Mean Annual Snowfall (inches)	70.6"	
	Maximum Monthly	5.43"	Sep 1961
	Maximum Monthly Mean	2.50"	September
	Maximum Rainfall (24-hr Period)	2.06"	Jul 1956
	Maximum Snowfall (24-hr Period)	17.7"	Dec 1955
	Maximum Monthly Snowfall	48.5"	Feb 1955
Wind	Mean Hourly Speed	6.7 mph	
	Prevailing Direction	N	
	Maximum Velocity	109 mph	
	Direction Maximum Velocity	NNE	Feb 2004

Annual Mean Number of Days	Sunrise - Sunset	Clear	64	
		Partly Cloudy	65	
		Cloudy	236	
		Precipitation 0.01 inch or more	115	
		Snow, Sleet, or Hail 1.0 inch or more	22	
		Heavy Fog	26	
		Thunderstorms	1	
	Max. Temp	Greater than or Equal to 70° F	15	
		Less than or Equal to 32° F	113	
	Min. Temp	Less than or Equal to 32° F	100	
		Less than or Equal to 0° F	37	

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01271 MEASUREMENT, PAYMENT, AND CONTRACT COST BREAKDOWN
01355 ENVIRONMENTAL PROTECTION
01451 CONTRACTOR QUALITY CONTROL
01525 SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

DIVISION 02 - SITE WORK

02222 MAINTENANCE DREDGING

-- End of Division Table of Contents --

DRAFT

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01016

SPECIAL ITEMS (CIVIL WORKS)

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- 1.3 ACCIDENT PREVENTION PLAN
 - 1.3.1 Navigation Safety and Coordination Plan
- 1.4 FIRE SAFETY
- 1.5 INSPECTION
 - 1.5.1 General Requirements
 - 1.5.2 Contractor Furnished Equipment, Labor, Materials, and Transportation
 - 1.5.3 Noncompliance
- 1.6 EXAMINATION AND ACCEPTANCE
 - 1.6.1 Examination
 - 1.6.2 Acceptance
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- 3 PART 3 EXECUTION - NOT USED
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-- End of Section Table of Contents --

SECTION 01016
SPECIAL ITEMS (CIVIL WORKS)

1 PART 1 - GENERAL

1.1 SCOPE

Items included in this section cover special features and/or requirements which are not otherwise specified or indicated.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ENGINEERING MANUALS (EM)

EM 385-1-1

(3 November 2003) U.S. Army Corps of Engineers Safety and Health Requirements Manual

EM 1110-2-1003

(31 October 1994) Engineering and Design Hydrographic Surveying
<http://www.usace.army.mil/inet/usace-docs/eng-manuals/em1110-2-1003/toc.htm>

1.3 ACCIDENT PREVENTION PLAN

The Contractor shall obtain the Contracting Officer's approval of the Accident Prevention Plan required by EM 385-1-1 prior to start of any work at the project site.

1.3.1 Navigation Safety and Coordination Plan

The Contractor shall submit a Navigation Safety and Coordination Plan as part of the Accident Prevention Plan. This plan shall include but not be limited to temporary lights at night and/or marker buoys during construction, "Notice to Mariners", coordination with local officials, and reference to applicable U.S. Coast Guard regulations for construction vessels as well as Section 19, Floating Plant and Marine Activities of EM 385-1-1.

1.4 FIRE SAFETY

The Contractor shall obtain a permit from the organization having jurisdiction over the job site for any welding or open flame work.

1.5 INSPECTION

1.5.1 General Requirements

The Contractor shall install and maintain any required gauges, ranges, location marks and limit marks in proper order and position, as approved by the Contracting Officer.

1.5.2 Contractor Furnished Equipment, Labor, Materials, and Transportation

The Contractor shall furnish, upon the request of the Contracting Officer, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the dredging plant as required by the Government for inspection of the work and suitable transportation from all points on shore designated by the Contracting Officer to and from the various points of plant. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost thereof will be deducted from any amounts due or to become due the Contractor. The Contractor Shall also furnish 2 VHF handheld radios and/or 2 cellular telephones, as determined by the Contracting Officer, with a local Anchorage number subscribed to a local Anchorage system.

1.5.3 Noncompliance

Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost thereof will be deducted from any amounts due or to become due the Contractor.

1.6 EXAMINATION AND ACCEPTANCE

1.6.1 Examination

As soon as practicable after completion of each phase of dredging, such work shall be thoroughly examined as specified in paragraph SURVEYS herein. Should any shoals, lumps, or other lack of depth 1 foot or more above Project Depth be disclosed by this examination, the Contractor will be required to remove same.

1.6.2 Acceptance

Acceptance of whole or part of the work and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error. The acceptance of a completed section shall not change the time of payment of the retained percentages of the whole or any part of the work.

1.7 CAMP FACILITIES

There are no Government owned camp facilities at the job site for the Contractor's use.

1.8 UTILITIES

The furnishing of water, electricity, and other utilities for work under this contract will be the Contractor's responsibility.

1.9 GOVERNMENT FIELD OFFICE

The Contractor shall provide the Contracting Officer's Representative with access to an office, with a desk, copier; access to a toilet; and an area to observe the project operations while protected from the weather; to the

satisfaction of the Contracting Officer. All costs shall be borne by the Contractor and included in the contract price.

1.10 PARTNERING

a. The Government intends to encourage the foundation of a cohesive partnership with the Contractor and its subcontractors. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient contract performance, intended to achieve completion within budget, on schedule, and in accordance with plans and specifications.

b. This partnership will be bilateral in makeup, and participation will be totally voluntary. Typical partnering costs include travel and per diem for attendees to the partnering site, meeting room rental, and facilitator costs. Implementation of this initiative will be a topic of discussion at the Pre-construction Conference. Any costs associated with implementing this partnership will be agreed to by both parties and will be shared equally subject to the cost limitations of Section 01271 - MEASUREMENT, PAYMENT, AND CONTRACT COST BREAKDOWN, paragraph 1.2.5. To implement this partnership initiative, it is anticipated that within 30 days after Notice to Proceed the Contractor's on-site Project Manager and the Government's on-site representative will attend a partnership development seminar followed by a team-building workshop to be attended by the Contractor's key on-site staff and Government personnel. Follow-up workshops will be held periodically throughout the duration of the contract, as agreed to by both parties.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 COORDINATION WITH OTHERS

3.1.1 Traffic

Dredging may be interrupted by vessels maneuvering or moored anywhere within the dredging limits. The Contractor shall keep advised of vessel arrivals and departures and conduct operations so that interference with vessels will not occur. The Contractor's operations shall allow access to and from the Port at all times. All dredging activities, with special emphasis placed upon those dredging activities near the face of the Port and P.O.L. terminal docks, shall be coordinated with the Port of Anchorage Operations Manager at (907) 343-6200. The Contractor shall also coordinate with the Port of Anchorage Operations Manager in the unlikely event that it becomes necessary to have vessels moved out of the way of dredging operations. Pursuant to Contract Clause OTHER CONTRACTS (FAR 52.236-008) of this contract, the Contractor may be required to work in close proximity to another contractor and share the same disposal site. In the event that multiple contractors are required to work within the project limits, work areas for each contractor will be coordinated with the Contracting Officer's Representative and the Port of Anchorage Operations Manager at the required weekly coordination meetings.

3.2 SURVEYS

Surveys shall be performed as follows, through the use of an independent, certified hydrographic surveyor, for the basic requirement and option year 2007 (if awarded). Pre-dredge, intermediate, and post-dredge surveys shall, as a minimum, include the entire area within the **Survey Limits** as shown on the drawings. In addition, actual area(s) dredged between successive surveys shall be shown on each successive survey to include clamshell and hopper dredges, as appropriate. Special care must be exercised to ensure that dredged areas between successive surveys are accurately reflected on the plan view survey drawings since these dredged areas will be used for computations of any dredging below the Maximum Pay Line or outside the authorized dredging prism for payment purposes. All surveys shall be made as close as practical along the face of the Port and P.O.L. 2. In addition, all pre-dredge, post-dredge, and Monday and Thursday Intermediate surveys shall include lead-line soundings off the face of the Port and P.O.L. 2 on 50-foot stations. All surveys shall be coordinated with the Contracting Officer's Representative and any other hydrographic survey vessels operating within the Survey Limits.

3.2.1 Pre-Dredge Surveys

Phase I: A pre-dredge survey of the entire area, as described in paragraph SURVEYS and shown on the contract drawings, shall be performed prior to the start of any PHASE I dredging. The Contractor shall notify the Contracting Officer in writing of its intent to perform a phase I pre-dredge survey at least 10 days in advance. The Contractor shall complete the pre-dredge survey within 5 days prior to the start of any Phase I dredging. Phase II: A pre-dredge survey of the entire area, as described in paragraph SURVEYS and shown on the contract drawings, shall be performed prior to the start of any Phase II dredging. Intermediate survey(s) may be re-scheduled, as needed, from the specified Monday/Thursday sequence to most accurately reflect startup conditions for Phase II dredging. The Contractor shall complete the pre-dredge survey(s) within 1 day prior to the start of any Phase II dredging. If agreed to by both parties, the post-dredge surveys for completion of Phase I dredging may also be utilized as the pre-dredge surveys for Phase II dredging.

3.2.2 Intermediate Surveys

Except as noted under paragraphs PRE-DREDGE SURVEYS and POST-DREDGE SURVEYS, Intermediate surveys during Phase I shall be performed every Monday and Thursday following the initial pre-dredge survey through August 31, 2006 for Base Item 0005, and every Monday and Thursday following the initial pre-dredge survey through August 30, 2007 for Optional Item 0011, if awarded. Intermediate surveys for Phase II shall be performed every Monday beginning September 4, 2006 through October 30, 2006 for Base Item 0005 and every Monday beginning September 3, 2007 through October 29, 2007 for Optional Item 0011, if awarded.

3.2.3 Post-Dredge Surveys

Post-dredge survey(s) of the entire area, as described in paragraph SURVEYS above and shown on the contract drawings, shall be performed within 1 day following completion of final dredging of Basic Item 0003, and Basic Item 0009, if awarded, to verify final dredging results for the dredging season. Intermediate survey(s) may be re-scheduled, as needed, from the specified

Monday/Thursday sequence to accurately reflect final dredging conditions. The Contractor shall notify the Contracting Officer in writing of its intent to perform any post-dredge survey at least 3 days in advance. If the results of any post-dredge survey indicate that the specified project depth has not been achieved for any part of the project, dredging shall resume until the condition has been corrected and the post-dredge survey shall be repeated at no additional cost to the Government. This process shall continue until the specified project depth has been achieved.

3.2.4 Equipment

The Contractor shall provide information to the Contracting Officer on electronic, horizontal positioning and recording/depth finding equipment to be used in the work, demonstrating that it will provide surveys meeting all requirements of EM 1110-2-1003 for Class 1 surveys. The information provided shall include, as a minimum, the name, model and year of manufacture of the equipment, the electronic frequencies of the horizontal positioning and depth finding equipment, and the manufacturer's stated positioning accuracy and capability. In addition, the Contractor shall provide proof that the vessel to be used is safe and suitable for operation in the waters in which the work is to be performed, and that experienced staff will be used for operation of the vessel as well as the positioning and recording/depth finding equipment.

3.2.5 Quantity Computations and Cross-Section Drawings

Quantity computations shall be performed for all surveys. Quantity computations for pre-dredge survey(s) shall show quantities available to project depth, required over-depth, and maximum pay-line for each area, calculated using the average-end-area method and given in cubic yards. Quantity computations over the entire project area, comparing successive hydrographic surveys, shall show dredge/scour and fill (shoal) quantities to project depth, required over-depth, and maximum pay-line and any dredging below the maximum pay-line or outside the dredging prism, for each area, calculated using the average-end-area method and given in cubic yards.

Additional quantity computations, comparing successive hydrographic surveys, shall show dredged quantities only to project depth, required over-depth, and maximum pay-line, plus any dredging below the maximum pay-line or outside the dredging prism, only for area(s) dredged since the previous survey, calculated using the average-end-area method and given in cubic yards. The independent hydrographic surveyor shall furnish cross-sections for each 25-foot baseline station increment across the Survey Limits as shown on the contract drawings. For each station within the Projects Limits, side slope(s), Project Depth, Required Over-depth, and Maximum Pay-line shall be shown on the cross-sections. Paper plots of cross-sections shall be computer generated by the independent hydrographic surveyor and plotted at scales of 1 inch equals 20 feet vertical and 1 inch equals 50 feet horizontal. Cross-sections shall also be submitted as drawing files on CD-ROM disk(s), in .DWF and .DWG formats, and capable of reproducing the complete plotted cross-section drawings. Preliminary quantity and cross-section materials shall be furnished to the Contracting Officer within 4 days after completion of any survey. Final quantity and cross-section materials shall be furnished to the Contracting Officer within 10 days after completion of any survey.

3.2.6 Plan-View Drawings

3.2.6.1 Government-Furnished

The Contracting Officer will provide the Contractor with a CD-ROM disk(s) containing data in .DWF and .DWG formats capable of producing a basic survey contract drawing, complete with area map, borders, title block, and miscellaneous information.

3.2.6.2 Contractor Submittals

3.2.6.2.1 Surveys

The Contractor shall provide CD(s) of all raw survey data to the Contracting Officer's Representative in the field immediately following any survey. Also following each survey, the Contractor shall reduce the survey depth soundings for all surveys to the nearest one-tenth (0.1) foot and plot them onto plan-view mylars computer-generated by the independent hydrographic surveyor from the CD(s) provided. Soundings shall be recorded and plotted at 25-foot intervals along 25-foot baseline station lines across the entire Survey Limits as shown on the contract drawings. Intermediate soundings shall be recorded and plotted where topographic anomalies or obstacles of 2 feet or greater are encountered. All pertinent title block information shall be printed within the block. Dredged areas shall be shown as required under SURVEYS above. Proposed title block information shall be submitted to the Contracting Officer in advance for approval. Any information found in error on the Government-furnished drawings provided in paragraph Government-Furnished above, such as vicinity maps, notes, shorelines, floats, docks, navigational aids, control coordinates, etc., shall be eradicated and replaced with accurate data as it becomes known. Each drawing shall contain all pertinent data ink-plotted by machine legibly and accurately at above spacing. Final survey drawings shall be signed, dated and stamped by the independent hydrographic surveyor, complete and ready for Government review and signatures. Survey drawings shall also be submitted on CD(s) as specified above, capable of reproducing the complete plotted survey drawings. Preliminary drawings and CD(s) including point files shall be submitted within 2 days after completion of any survey. Final drawings and CD(s), including point files, shall be submitted within 10 days after completion of any survey.

3.2.6.2.2 Dredging

The Contractor shall provide a completed ENG Form 27A - Daily Report of Operations - Hopper Dredges, to the Contracting Officer for each day of hopper dredging. A blank ENG Form 27A is attached at the end of this section.

3.2.7 Field Notes

Upon completing any survey, quantity calculations, or plan-view drawings, the Contractor shall furnish the originals of all field notes, notebooks, fathometer data, sorted and corrected electronic point files, and any other records relating to the survey or to the layout of the work to the Contracting Officer. The Contractor shall retain copies of all such materials furnished to the Contracting Officer.

3.2.8 Existing Monuments

As part of the pre-dredge survey, the position, elevation, and condition of existing control points mentioned or shown on the drawings shall be verified.

If, during the performance of the work, the Contractor removes or destroys previously set brass or aluminum survey caps, the survey caps, shall be reinstated by the Contractor at its expense.

3.2.9 Accuracy

All surveys for layout, quantities and final As-Built conditions shall conform to standard third order traverse requirements as specified in Field Manual FM 5-232, Ch. 1. The following accuracies shall be attained:

- a. Azimuth closure shall not exceed 5 seconds per angle in traverse.
- b. Distance closure error, after azimuth adjustment, shall not exceed 1 part in 5,000 parts.
- c. Traverse adjustment shall be by the Compass Rule.
- d. Levels shall be to third order standards.
- e. Vertical control shall be in feet and refer to Mean Lower Low Water Datum (MLLW = 0.0 feet).
- f. Horizontal control shall be as stated on the individual contract drawings.

3.2.10 Certification

The independent hydrographic surveyor shall be a State of Alaska Registered Land Surveyor (RLS) or have current hydrographic certification from the American Congress for Surveying and Mapping (ACSM), valid in the State of Alaska. The surveyor shall document at least 3 years of experience in hydrographic surveying of navigable channels.

3.3 EQUIPMENT

The Contractor agrees to keep equipment on the job sufficient to meet the requirements of the work. The equipment shall be in satisfactory operating condition and capable of safely and efficiently performing the work as set forth in the specifications and shall be subject to inspection by the Contracting Officer or his representative at all times. The equipment used shall be of a design and have characteristics similar to equipment which has been used successfully for a minimum of 3 years under similar conditions. Any clamshell bucket shall be at least 14 cubic yard capacity and a minimum weight of 50,000 pounds. It shall be the responsibility of the Contractor to prove the equipment has sufficient capacity to accomplish the work in a timely manner without damage to existing port facilities, or obstructing navigation. Prior to the start of any dredging, certifications showing the most recent load and performance test results, recent certification of inspection, and inspector's name, qualifications, and address shall be provided to the Contracting Officer for all cranes/derricks.

3.4 MOBILIZATION AND PROGRESS SCHEDULE

The Contractor shall furnish a complete mobilization and projected work progress schedule within 10 days of Notice to Proceed. The equipment listed, manpower to be utilized and proposed work schedule shall be furnished in sufficient detail to permit determination by the Contracting Officer that the contract requirements can readily be met.

3.5 EQUIPMENT SCHEDULE

The PLANT AND EQUIPMENT SCHEDULE attached to this section shall be completed by the Contractor as hereafter described, and submitted within 10 days of receipt of the Notice to Proceed.

3.5.1 Number

For equipment, give identifying number or name.

3.5.2 Type

Under this heading give general description. Sufficient detailed information shall be furnished to properly delineate the proposed equipment and operation.

3.5.3 Capacity

Under this heading, state the estimated capacity of the plant in cubic yards per day when working materials similar to those anticipated in the work, for each location, accounting for the variable distances to disposal sites. No reduction in the stated capacity of the plant employed on the work shall be made except by written permission of the Contracting Officer. (The measure of the "capacity of the plant" shall be its actual performance on the work which these specifications apply).

3.6 HISTORICAL QUANTITIES DREDGED

The following listed quantities are those recorded for dredging seasons 2000 through 2004:

YEAR	QUANTITY (CY)	COMMENTS
2000	808,007	Clamshell only
2001	409,941	Clamshell only
2002	742,877	Clamshell only
2003	1,477,800	Includes 300,000 cy by hopper dredge WESTPORT and 660,000 cy by hopper dredge SUGAR ISLAND in addition to regular clamshell dredging
2004	2,032,415	Hopper and clamshell combination

A completed ENG Form 27A (Daily Report of Operations - Hopper Dredges) from the end of the 2004 dredging season is attached at the end of this section.

3.7 SCHEDULING

Dredging shall begin no earlier than May 1, 2006, but not later than May 15, 2006 for Base Items 0003 and 0004, and no earlier than May 1, 2007, but not later than May 15, 2007 for Optional Items 0008 (if awarded) and 0009 (if

awarded). Phase I is defined as clamshell dredging work required to accomplish, as a minimum, Required Over-depth in Areas "A", "C", and "D"; and hopper dredge work required to accomplish, as a minimum, Required Over-depth in Area "B"; as shown on the contract drawings. Phase I will terminate on August 31, of the Base year and Option year (if awarded). Phase II is defined as hopper dredging work required to accomplish, as a minimum, Required Over-depth in Areas "A", "B", "C", and "D" as shown on the contract drawings. Phase II will begin on September 1 of the Base year and Option year (if awarded) and will be accepted as substantially completed if an Intermediate Survey indicates that the entire Phase II project area has been dredged and maintained to the Required Over-depths shown on the contract drawings, but no earlier than 20 October of the Base year, or Option year (if awarded), provided that Required Depth has been achieved throughout the entire project as determined by the contracting officer. Failure to perform any, or all, of these Phases may result in Liquidated Damages being assessed pursuant to Special Contract Requirement SCR-3 - LIQUIDATED DAMAGES. For clamshell dredging, Areas "A" and "C" are the highest priority followed by Area "D". During Phase II hopper dredging, Areas "A" and "C" are the highest priority followed by "B" and "D". Periods of standby are to be expected during all phases of dredging. Re-dredging during each phase shall commence immediately for any areas that are one foot or more above the Required Over-depth for any portion of Areas "A" or "C" as shown on the contract drawings, or two feet or more above Required Over-depth for Areas "B" and "D". In general, Phase II hopper dredging of area "B" shall be accomplished from seaward and progress toward Area "D" and downward in shallow increments of one foot, or less, so as to prevent a ridge of shoal material from forming parallel to the Port. Historically, shoaling of 3,000 to 19,000 cubic yards per day occurs within the project area.

3.9 PLANT AND EQUIPMENT SCHEDULE

Minimum Plant To Be Used *

<u>No.</u>	<u>Type</u>	<u>Capacity</u>	<u>Crew Requirements</u>	<u>Age and Condition</u>	<u>Location</u>
------------	-------------	-----------------	--------------------------	--------------------------	-----------------

*NOTE: In preparing the above tabulation, the Contractor shall insert the following information under the appropriate heading, using a separate line for each major item and additional pages if necessary.

a. Number. For dredges, towboats, and material scows give identifying number or name.

b. Type. Under this heading give description as follows: For clamshell dredges, show bucket capacity in cubic yards, horsepower of hoist engine, type of power, number of swings per hour, and maximum draft, beam, and length of dredge. Show pump size and pump and cutter-head horsepower (hp) for pipeline dredges. For hopper dredges, show number of drag arms including diameter(s) and length(s), hopper capacity, pump size(s) and horsepower, maximum draft, length, beam, and type and horsepower of propulsion. Show maximum draft, length, beam, and hopper capacity of material scows. Show maximum draft, length,

beam, and horsepower of towboat. Indicate number of crew required for each item of plant.

3.9 ATTACHMENTS

-- End of Section --

DRAFT

DAILY REPORT OF OPERATIONS - HOPPER DREDGES				REPORTS CONTROL SYMBOL	
DISTRICT				ENG-CWO-13	
EXACT LOCATION OF WORK				DREDGE	
				DATE	
				NUMBER OF PERSONS IN CREW	
Length of Cut		CHARACTER OF MATERIAL		HOPPER CAPACITY CU. YDS	
Width of Cut		AVG INSITU DENSITY kg/L		AV. VOL. BIN WATER CU. YDS	
RT to dump		DENSITY OF WATER kg/L		AV. UNFILLED CAP. CU. YDS	
NAVIGATION AND OTHER DREDGING AIDS (Describe and include statement on adequacy and recommendations)					
WORK PERFORMED				DRAFT FOR LOAD NO. (for one load only)	
DREDGING AND HAULING				AGITATING	
# OF LOADS		TOT. CU. YDS		DISPOSAL AREA	
TOT. CYD..		FORWARD		LIGHT	
AFT		DRAG DEPTH		INDICATORS LAST CHECKED ON	
GAS EJECTORS USED		0 % OF PUMPING TIME			
REMARKS					
CONT. REF.					
PROJ. LINE					
DATE					

COPY

INSPECTORS QUALITY ASSURANCE REPORT (QAR)		THE QCR WILL BE ATTACHED TO OR FILED WITH THE QAR	
DAILY LOG OF CONSTRUCTION - MILITARY (ER 415-1-302)		REPORT NUMBER	167
PROJECT 2004-2005 Maintenance Dredging Port Of Anchorage		DATE	11-01-04
CONTRACTOR MANSON CONSTRUCTION COMPANY		CONTRACT NUMBER	W911KB-04-C-0007
CQC Inspection phases attended and instructions given NO QAR ON SITE.		WEATHER	
Results of QA inspections and tests, deficiencies observed, actions taken and corrective action of contractor. Include comments pertaining to CQC activities			
VERBAL INSTRUCTIONS GIVEN TO CONTRACTOR. (Include names, reactions and remarks)			
HAS ANYTHING DEVELOPED ON THE WORK WHICH MIGHT LEAD TO A CHANGE ORDER OR FINDING OF FACT?		YES	NO
Information on progress of work, reasons for delays and extent of delays, weather, plant, materials, etc.			
Information, instructions or actions taken not covered on QCR report or disagreements.			
SAFETY. (Include any infractions of approved safety plan, safety manual or instructions from Government personnel. Specify corrective action taken.)			
REMARKS. (Include visitors to project and miscellaneous remarks pertinent to work.)			
QAR SIGNATURE	DATE	SUPERVISOR'S INITIALS	DATE
	11-01-04		



mailing address p.o. box 24067 Seattle, Wa. 98124

DAILY CONTRACTOR QUALITY CONTROL REPORT

PROJECT Maintenance Dredging DATE 11/1/2004
Port of Anchorage
 CONTRACT# W911KB-04-C-0007 REPORT# 167

MANSON CONSTRUCTION CO. and Area of Responsibility:
Port of Anchorage / Sta. 7+00 to 93+50

WEATHER: (CLEAR) (P. CLOUDY) (CLOUDY)
 Rain/snow
 WIND: MAX. 0 mph MIN. 0 mph
 TIDE: MAX. 27.8 MIN. : 0.2

1 Work Performed Today: (Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in table above.)

Station's Worked Hopper dredge Area -B
 Clamshell Yes: _____ No: x
 Hopper Yes: x No: _____
 Manson survey x Terra survey
 Survey Yes: x No: _____ Location condition

CLAM SHELL OPERATION'S (Derrick Viking)

Daily	Job Total's
CY Reported <u>0</u>	Cy to Date Logged YD <u>822,405</u>
LOADS DUG: <u>0</u>	TOTAL # OF LOADS DUG : <u>387</u>
# OF DUMPS <u>0</u>	# OF TOTAL DUMPS <u>387</u>

HOPPER DREDGE OPERATION'S (Westport)

Phase 2 Line Item 0904// (AREA - B)

Daily	Job Total's
CY Reported <u>3,445</u>	Cy to Date Logged YD <u>1,202,680</u>
LOADS DUG: <u>4</u>	TOTAL # OF LOADS DUG : <u>1,482</u>
# OF DUMPS <u>4</u>	# OF TOTAL DUMPS <u>1,482</u>

2 Remarks: (Discuss delays and any conflicts in plans, specifications or instructions.)

As of the 27th the survey yardage shows 1,211,316cy removed by hopper. The gap between logged yardage and the survey yardage has been increasing slowly. I believe this is do to more scouring and less infill.

Survey will show more yardage removed than logged yardage

3 Tests performed as required by plans and/or specifications and results of tests:

None

Verbal Instruction Received: (List any instruction given by government personnel on construction deficiencies, retesting required, etc., with action to be taken)

4 None

Results of Surveillance: (Include satisfactory work completed or deficiencies, with action to be taken.)

Phase 1 Line Item 0003AA 100,00cy has been completed.

Phase 1 Line Item 0003AB 150,00cy has been completed.

(modification P00002) 110,000cy has been completed.

(modification P00005) 13,923cy has been completed.

Phase 2 Clamshell

Item 0005AA has been completed

Item 0005AB has been completed

Phase 3 Clamshell

Item 0006AA First 100,000cy has been completed

Item 0006AB second 100,000cy has been completed

Modification P00008 200,000cy 88,452cy have been removed

Clamshell operations are done

Phase 2 Hopper

We have completed Item 0004AA

We have completed Item 0004AB

Modification P00007 (450,000cy) Has been completed

Modification P00011 (200,000cy) Has been completed

Modification P00013 (180,000cy) 152,680cy of logged yardage has been removed

6 Safety Inspection: (Report violations noted, corrective instructions given and corrective actions taken.)

Daily safety meetings were held at crew change

Daily safety walk through was conducted / No violations were found

7 ENVIRONMENTAL QUALITY CONTROL

Environment Quality Control Requirements are in place and have been checked? Yes x

Not Applicable No

Have any endangered species been encountered? Yes No x
(If Yes attach required reports in accordance with Section ENVIRONMENTAL PROTECTION)

CONTRACTOR'S VERIFICATION: The above report is complete and correct and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications except as noted above.

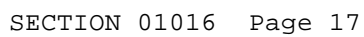

Contractor's Approved Authorized Representative

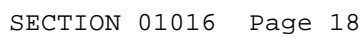
DAILY REPORT OF OPERATIONS - HOPPER DREDGES				REPORTS CONTROL SYMBOL ENGCW-0-13 REPORT: 118	
DISTRICT U.S. ARMY COE, ALASKA DISTRICT CONTRACT NUMBER W911KB-04-C-0007				HOPPER DREDGE WESTPORT TUG Peter-M	
EXACT LOCATION OF WORK Port of Anchorage Anchorage Alaska STATIONS 7+50 TO 70+00 (AREA-B)		Maintenance NEW WORK		DATE 11/1/2004	
AV LENGTH OF CUT 4000 FT		CHARACTER OF MATERIAL		HOPPER CAPACITY 1800 CU YDS	
AV WIDTH OF CUT 100 FT		DENSITY OF MATERIAL 2 gms/liter		AV VOL OF BIN WATER CU YDS	
AV DIST TO DUMP 0.75 S MILE		DENSITY OF WATER 1.025 gms/liter		AV UNFILLED CAPACITY CU YDS	
NAVIGATION AND OTHER DREDGING AIDS: (Describe and include statement on adequacy and recommendations.)					
DGPS AND WINOPS					
WORK PERFORMED				DRAFT FOR LOAD NO	
DREDGING AND HAULING		AGITATING		LIGHT	
NO OF LOADS		TOT CU YDS		LOADED	
Dug		Dredged		4	
DAILY 4		DAILY 3,445		12	
TOTAL 1422		TOTAL 1,202,880		67 MAX	
DAILY 4		DAILY 3,445		7/7/2004	
TOTAL 1422		TOTAL 1,202,880		NO	
DISTRIBUTION OF TIME					
AGITATING (Minutes)		DREDGING AND HAULING (Minutes)		MILES RUN (Est. Miles)	
EFFECTIVE WORKING TIME		350		0.14	
PUMPING		5		0.01	
TURNING		5		0.01	
TO DUMP		20		0.01	
DUMPING		20		0.01	
TO CUT		50		0.01	
TOTALS		475		0.01	
NON-EFFECTIVE WORKING TIME		0		0.00	
TAKING ON FUEL AND SUPPLIES		0		0.00	
MOVING/CHANGING		0		0.00	
LOSS DUE TO NATURAL ELEMENTS		0		0.00	
LOSS DUE TO TRAFFIC AND SPIDERS		0		0.00	
MINOR OPERATING REPAIRS		0		0.00	
TRANSFERING BETWEEN WORKS		0		0.00	
DRAG ARM FOLD ON DECK		0		0.00	
FIRE AND BOAT DRILLS		0		0.00	
MISCELLANEOUS		0		0.00	
TOTALS		0		0.00	
LOST TIME		0		0.00	
MAJOR REPAIRS AND ALTERATIONS		0		0.00	
CESSATION		0		0.00	
COLLISIONS		0		0.00	
TOTAL LOST TIME		0		0.00	
TOTAL TIME IN PERIOD		1440		0.00	
AVERAGE SPEED OF DREDGE		1 KNOTS		MINUTES RADAR IN USE 0.00	
LOADING		FEET / MINUTE		TIDE DATA WAS OBTAINED BY MEANS OF HAZEN GAUGE	
AGITATING		WEATHER		CLOUDY	
GALS OF FUEL OIL CONSUMED		100			
GALS OF WATER CONSUMED		0			
REMARKS:					
Kind of Contract					
SUBMITTED BY: <i>R. J. R.</i>					
(SEE REVERSE SIDE)					

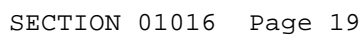
ENR FORM 27A, Apr 73


REPLACES COAST FORM 27A, 1 SEP 65, WHICH MAY BE USED

Dredge Performance Log: W911KB-04-C-0007										Location		Anchorage		MAINTENANCE		Dredge WESTPORT		Hopper Capacity 1800 cy		Date: 11-1-04	
Lt. No.	Cut No.	Pumps	Start	Stop	Minutes Pumping	Stations From To	Ht. of Tide	Depth At Dump site	At Dump Arrival	To Dump	Minutes Dumping	To Dump	Total Cycle	CY/Min	Nat. Miles To Dump cut	Hopper Sounding or Tonnage	Cubic Yards				
105	1	2340	0130	110	78+00	20+00	7.5		0135	5	10	110					879				
106	2	0150	0225	95	20+00	20+00	0.1		0330	5	15	120					861				
106	3	0350	0520	85	20+00	20+00	9.2		0525	5	15	115					844				
106	4	0545	0715	90	20+00	20+00	20.9		0720	5	10	105					861				
Totals										20	20	50	475			AREA A CY Loads	C D				
Averages																					
Reason For Delay										Watch	00-12	12-00									
Start	Stop	Min	Finish Job / NOBE out							Capt. DT	RW	Daily Cubic Yards: 3945									
Job Total CY:																					







DAILY REPORT OF OPERATIONS - HOPPER DREDGES				REPORTS CONTROL SYMBOL ENGW-0-13 REPORT: 118	
DISTRICT U.S. ARMY COE, ALASKA DISTRICT CONTRACT NUMBER W911KB-04-C-0007				HOPPER DREDGE WESTPORT TUG Peter-M	
EXACT LOCATION OF WORK Port of Anchorage Anchorage Alaska STATIONS 7+50 TO 70+00 (AREA-B)				DATE 11/1/2004	
<input checked="" type="checkbox"/> Maintenance <input type="checkbox"/> NEW WORK				NUMBER OF PERSONS IN CREW WESTPORT 5 PETER-M 4	
AV LENGTH OF CUT 4000 FT		CHARACTER OF MATERIAL		HOPPER CAPACITY 1800 CU YDS	
AV WIDTH OF CUT 100 FT		DENSITY OF MATERIAL 2 gms/liter		AV VOL OF BIN WATER CU YDS	
AV DIST TO DUMP 0.75 S MILE		DENSITY OF WATER 1.025 gms/liter		AV UNFILLED CAPACITY CU YDS	
NAVIGATION AND OTHER DREDGING AIDS: (Describe and include statement on adequacy and recommendations.)					
DGPS AND WINOPS					
WORK PERFORMED				DRAFT FOR LOAD NO	
DREDGING AND HAULING		AGITATING		LIGHT	
NO OF LOADS		TOT CU YDS		LOADED	
Dug		Dredged		4	
Dumps		Today		4	
DAILY 4		DAILY 3,445		67 MAX	
TOTAL 1,362		TOTAL 1,202,680		INDICATORS LAST CHECKED ON 7/1/2004	
		Prev: 0		GAS INJECTORS USED NO	
		To Date: 0			
DISTRIBUTION OF TIME					
		AGITATING (Minutes)		DREDGING AND HAULING (Minutes)	
EFFECTIVE WORKING TIME				MILES RUN (Stat Miles)	
PUMPING 380		380		0.00	
TURNING 5		5		0.00	
TO DUMP 20		20		0.00	
PUMPING 20		20		0.00	
TO CUT 60		60		0.00	
TOTALS 475		475		0.00	
NON-EFFECTIVE WORKING TIME		0		0.00	
TAKING OFF FUEL AND SUPPLIES		0		0.00	
MISCELLANEOUS		0		0.00	
LOSS DUE TO NATURAL ELEMENTS		0		0.00	
LOSS DUE TO TRAFFIC AND BRIDGES		0		0.00	
MINOR OPERATING REPAIRS		0		0.00	
TRANSFERRING BETWEEN WORKS		0		0.00	
DRAG ARM BUILD COLLIDER		0		0.00	
FIRE AND BOAT DRILLS		0		0.00	
MISCELLANEOUS		0		0.00	
TOTALS		565		0.00	
LOST TIME		0		0.00	
MAJOR REPAIRS AND ALTERATIONS		0		0.00	
CEBRATION		0		0.00	
EXCLUSIONS		0		0.00	
TOTAL LOST TIME		0		0.00	
TOTAL TIME IN PERIOD		1440		0.00	
AVERAGE SPEED OF DREDGE 1.30 KTS		MINUTES HALLAR IN USE		0.00	
LOADING FEET/MINUTE					
AGITATING		WEATHER		CLOUDY	
GALS OF FUEL OIL CONSUMED 400					
GALS OF WATER CONSUMED 0					
REMARKS: End of Contract					
SUBMITTED BY: 					
(SEE REVERSE SIDE)					

ENG FORM 27A, Apr 73

REPLACES DOST FORM 27A, 1 SEP 63, WHICH MAY BE USED.

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SECTION 01271

MEASUREMENT, PAYMENT, AND CONTRACT COST BREAKDOWN

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3.1 CONTRACT COST BREAKDOWN

-- End of Section Table of Contents --

SECTION 01271

MEASUREMENT, PAYMENT, AND CONTRACT COST BREAKDOWN

1 PART 1 - GENERAL

1.1 GENERAL

Payment will be made at the contract unit or lump sum price. The price for each item shall constitute full compensation for furnishing all labor, equipment, and materials, and performing all operations necessary to construct and complete the work in accordance with the specifications and drawings. Payment shall be considered as full compensation, notwithstanding that minor features of the work to complete items may not be mentioned. Deviation in the actual quantity, either above or below the estimated quantity shown, shall not be made a basis for a claim for adjustment in the contract unit price, except as otherwise specified in the CONTRACT CLAUSES under Section 00700, FAR 52.211-0018 VARIATIONS IN ESTIMATED QUANTITIES, and EFAR 52.212-5001 VARIATIONS IN ESTIMATED QUANTITIES - SUBDIVIDED ITEMS. Work paid for under one item will not be paid for under any other item.

1.2 MEASUREMENT

1.2.1 Job

Items measured as a "job" will be measured for payment as a complete item.

1.2.2 Cubic Yard (CY)

Measurement for clamshell dredging shall be accomplished by calculating the net volume of material removed from within the dredging prism as calculated by "Barge Count" below. Measurement for hopper dredging shall be accomplished by calculating the net volume of material removed from within the dredging prism by comparing successive hydrographic surveys and calculating the net volume of material removed as specified in Section 01016 - SPECIAL ITEMS. Such hydrographic surveys shall also be used to supplement barge counts as specified below. Partial payments for all dredging shall be adjusted to deduct any quantities removed below the maximum pay line or outside the dredging prism as shown on the contract drawings and as determined from hydrographic surveys.

1.2.2.1 Barge Count

Prior to commencement of any clamshell dredging, the Contractor shall furnish the dimensions, weight, and volume displacement charts for each of the barges or scows to be used on the project. Displacement charts shall be certified by a registered engineer, marine surveyor, or naval architect. The volume of material placed in hoppers or scows for transport to the disposal site will be calculated. For converting scow or barge displacement to tonnage, salt-water density will be taken as 64.0 pounds per cubic foot. Tonnage will then be converted to volume by using a sediment density factor. The density factor shall be calculated by the Contractor by weighing a sediment sample taken from a full barge or scow. All sampling, weighing, and calculations related to the density factor shall be performed in the presence of the Contracting Officer. The sediment density factor shall be recalculated by the Contractor whenever the material changes or upon request of the Contracting Officer. All calculation are subject to approval by the

Contracting Officer. All barges and dumping vessels shall have staff gauges for measuring vessel displacement, placed and mounted in positions approved by the Contracting Officer. All dumping vessels shall be loaded as evenly as possible to obtain uniform distribution of the dredged material. An adjustment in volume will be made to compensate for water trapped in a dumping vessel. If any material remains in the dumping vessel upon its return from the disposal site, displacement measurements will be taken prior to reloading, and an adjustment will be made to the next disposal measurement.

1.2.2.2 Calculation of Side Slopes

Volume of the side slopes will be calculated using the theoretical slopes given on the contract drawings. Any material misplaced inside the dredging area will be measured in place and deducted from the total. Volume totals will not include any material removed from outside of the authorized dredging area.

1.2.3 Each (EA)

Items indicated as each (EA) will be measured as a complete item.

1.3 PAYMENT

1.3.1 Items 0001 and 0007 (if awarded), Bid, Performance, and Payment Bond Cost

Payment will be made at the contract lump sum price and shall constitute full compensation for Bid, Performance, and Payment Bond Cost in accordance with Section 00700, FAR 52.228-0001 - BID GUARANTEE, FAR 52.228-0002 - ADDITIONAL BOND SECURITY, and FAR 52.228-0015 - PERFORMANCE AND PAYMENT BONDS - CONSTRUCTION.

1.3.2 Items 0002AA, 0002AB, 0008AA (if awarded), and 0008AB (if awarded), Mobilization and Demobilization

Payment will include transportation of plant, equipment, supplies, and appurtenances to and from the project; assembly of plant; and removal of same after completion of the project. Payment will be made in accordance with Section 00700, DFAR 252.236-7004 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION.

1.3.3 Items 0003AA, 0003AB, 0004AA, 0004AB, 0009AA (if awarded), 0009AB (if awarded), and 0010AA (if awarded), and 0010AB (if awarded), Dredging and Disposal

Payment will be made at the contract unit price and shall constitute full compensation for performing all dredging and disposal. Payment will be in accordance with above paragraphs GENERAL and MEASUREMENT. In no case will payment be made for material removed from below the maximum pay-line or outside the dredging prism as shown

1.3.4 Items 0005 and 0011 (if awarded), Hydrographic Surveys

Payment will be made at the contract unit price for each survey and shall constitute full compensation for performing the surveys as specified in Section 01016 - SPECIAL ITEMS. If the Contractor is required to re-perform

a post-dredge survey because re-dredging was required, no additional payment will be made. Under no circumstance will any payment be made for any survey until all requirements of Section 01016, paragraph 1.12 through 1.12.2 and 1.12.4 through 1.12.8 have been met.

1.3.5 Item 0006, Optional Partnering Session (if awarded)

Payment will include a maximum of fifty percent (50%) of the total lump sum price for conducting a partnering session or \$10,000.00, whichever is less.

1.4 REPORTING REQUIREMENTS

1.4.1 Daily Reports

The Contractor shall prepare and maintain a daily record of operations and furnish 3 copies and the original thereof to the Contracting Officer. Further instructions on the preparation of the report will be furnished at a pre-construction conference. The Contractor shall also furnish a legible copy of the daily dredge operation log to the Contracting Officer along with daily soundings and a tabulation of daily and cumulative dredged quantities.

2 PART 2 - PRODUCTS (NOT APPLICABLE)

3 PART 3 - EXECUTION

3.1 CONTRACT COST BREAKDOWN

The Contractor shall furnish within 30 days after the date of Notice to Proceed, and prior to the submission of its first partial payment estimate, a breakdown of its lump-sum pay item or items which will be reviewed by the Contracting Officer as to propriety of distribution of the total cost to the various accounts. Any unbalanced items as between early and late payment items or other discrepancies will be revised by the Contracting Officer to agree with a reasonable cost of the work included in the various items. This contract cost breakdown will then be utilized as the basis for progress payments to the Contractor.

-- End of Section --

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-- End of Section Table of Contents --

SECTION 01355

ENVIRONMENTAL PROTECTION

1 PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328	Definitions
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 279	Standards for the Management of Used Oil
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification
49 CFR 171 - 178	Hazardous Materials Regulations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual
WETLAND MANUAL	Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1

1.2 DEFINITIONS

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and excess pesticides, and contaminated pesticide equipment rinse water.

1.2.4 Land Application for Discharge Water

The term "Land Application" for discharge water implies that the Contractor shall discharge water at a rate which allows the water to percolate into the soil. No sheeting action, soil erosion, discharge into storm sewers, discharge into defined drainage areas, or discharge into the "waters of the United States" shall occur. Land Application shall be in compliance with all applicable Federal, State, and local laws and regulations.

1.2.5 Pesticide

Pesticide is defined as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant or desiccant.

1.2.6 Pests

The term "pests" means arthropods, birds, rodents, nematodes, fungi, bacteria, viruses, algae, snails, marine borers, snakes, weeds and other organisms (except for human or animal disease-causing organisms) that adversely affect readiness, military operations, or the well-being of personnel and animals; attack or damage real property, supplies, equipment, or vegetation; or are otherwise undesirable.

1.2.7 Surface Discharge

The term "Surface Discharge" implies that the water is discharged with possible sheeting action and subsequent soil erosion may occur. Waters that are surface discharged may terminate in drainage ditches, storm sewers, creeks, and/or "waters of the United States" and would require a permit to discharge water from the governing agency.

1.2.8 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

1.2.9 Wetlands

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and bogs. Official determination of whether or not an area is classified as a wetland must be done in accordance with WETLAND MANUAL.

1.3 GENERAL REQUIREMENTS

The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. The Contractor shall comply with all applicable environmental Federal, State, and local laws and regulations. The Contractor shall be responsible for any delays resulting from failure to comply with environmental laws and regulations.

1.4 SUBCONTRACTORS

The Contractor shall ensure compliance with this section by subcontractors.

1.5 PAYMENT

No separate payment will be made for work covered under this section. The Contractor shall be responsible for payment of fees associated with environmental permits, application, and/or notices obtained by the Contractor. All costs associated with this section shall be included in the contract price. The Contractor shall be responsible for payment of all fines/fees for violation or non-compliance with Federal, State, Regional and local laws and regulations.

1.6 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES: SD-01 Preconstruction Submittals Environmental Protection Plan; G The written site-specific Environmental Protection Plan.

1.7 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction activities or delivery of materials to the site, the Contractor shall submit an Environmental Protection Plan for review and approval by the Contracting Officer. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this section, but which the Contractor considers necessary, shall be identified and discussed after those items formally identified in this section. Prior to submittal of the Environmental Protection Plan, the Contractor shall meet with the Contracting Officer for the purpose of discussing the implementation of the initial Environmental Protection Plan; possible subsequent additions and revisions to the plan including any reporting requirements; and methods for administration of the Contractor's Environmental Plans. The Environmental Protection Plan shall be current and maintained onsite by the Contractor.

1.7.1 Compliance

No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, State, and local environmental protection laws and regulations. During Construction, the Contractor shall be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

1.7.2 Contents

The environmental protection plan shall include, but shall not be limited to, the following:

- a. Name(s) of person(s) within the Contractor's organization who is(are) responsible for ensuring adherence to the Environmental Protection Plan.
- b. Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.
- c. Name(s) and qualifications of person(s) responsible for training the Contractor's environmental protection personnel.
- d. Description of the Contractor's environmental protection personnel training program.
- e. An erosion and sediment control plan which identifies the type and location of the erosion and sediment controls to be provided. The plan shall include monitoring and reporting requirements to assure that the control measures are in compliance with the erosion and sediment control plan, Federal, State, and local laws and regulations. A Storm Water Pollution Prevention Plan (SWPPP) may be substituted for this plan.
- f. Drawings showing locations of proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on the site.
- g. Traffic control plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Plan shall include measures to minimize the amount of mud transported onto paved public roads by vehicles or runoff.
- h. Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas including methods for protection of features to be preserved within authorized work areas.
- i. Drawing showing the location of borrow areas.
- j. The Spill Control plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 302, 40 CFR 355, and/or regulated under State or Local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:
 1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer and the local Fire Department in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity is released to the environment. The plan shall contain a list of the required reporting channels and telephone numbers.
 2. The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.

3. Training requirements for Contractor's personnel and methods of accomplishing the training.
4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.
5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.
6. The methods and procedures to be used for expeditious contaminant cleanup.
- k. A non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris. The plan shall include schedules for disposal. The Contractor shall identify any subcontractors responsible for the transportation and disposal of solid waste. Licenses or permits shall be submitted for solid waste disposal sites that are not a commercial operating facility. Evidence of the disposal facility's acceptance of the solid waste shall be attached to this plan during the construction. The Contractor shall attach a copy of each of the Non-hazardous Solid Waste Diversion Reports to the disposal plan. The report shall be submitted on the first working day after the first quarter that non-hazardous solid waste has been disposed and/or diverted and shall be for the previous quarter (e.g. the first working day of January, April, July, and October). The report shall indicate the total amount of waste generated and total amount of waste diverted in cubic yards or tons along with the percent that was diverted.
- l. A recycling and solid waste minimization plan with a list of measures to reduce consumption of energy and natural resources. The plan shall detail the Contractor's actions to comply with and to participate in Federal, State, Regional, and local government sponsored recycling programs to reduce the volume of solid waste at the source.
- m. An air pollution control plan detailing provisions to assure that dust, debris, materials, trash, etc., do not become air borne and travel off the project site.
- n. A contaminant prevention plan that: identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground; and details provisions for compliance with Federal, State, and local laws and regulations for storage and handling of these materials. In accordance with EM 385-1-1, a copy of the Material Safety Data Sheets (MSDS) and the maximum quantity of each hazardous material to be on site at any given time shall be included in the contaminant prevention plan. As new hazardous materials are brought on site or removed from the site, the plan shall be updated.
- o. A waste water management plan that identifies the methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of ground water, disinfection water, hydrostatic test water, and water used in flushing of lines. If a settling/retention pond is required, the plan shall include the design of the pond including drawings, removal plan, and testing requirements for possible pollutants. If land application will be the method of disposal for the waste water, the plan shall include a sketch showing the location for land application along with a description of the pretreatment methods to be implemented. If surface discharge will be the method of disposal, a copy of the permit and associated documents shall be

included as an attachment prior to discharging the waste water. If disposal is to a sanitary sewer, the plan shall include documentation that the Waste Water Treatment Plant Operator has approved the flow rate, volume, and type of discharge.

p. A historical, archaeological, cultural resources biological resources and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on the project site: and/or identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands not previously known to be onsite or in the area are discovered during construction. The plan shall include methods to assure the protection of known or discovered resources and shall identify lines of communication between Contractor personnel and the Contracting Officer.

q. A pesticide treatment plan shall be included and updated, as information becomes available. The plan shall include: sequence of treatment, dates, times, locations, pesticide trade name, EPA registration numbers, authorized uses, chemical composition, formulation, original and applied concentration, application rates of active ingredient (i.e. pounds of active ingredient applied), equipment used for application and calibration of equipment. The Contractor is responsible for Federal, State, Regional and Local pest management record keeping and reporting requirements as well as any additional specific requirements.

1.7.3 Appendix

Copies of all environmental permits, permit application packages, approvals to construct, notifications, certifications, reports, and termination documents shall be attached, as an appendix, to the Environmental Protection Plan.

1.8 PROTECTION FEATURES

This paragraph supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to start of any onsite construction activities, the Contractor and the Contracting Officer shall make a joint condition survey. Immediately following the survey, the Contractor shall prepare a brief report including a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. This survey report shall be signed by both the Contractor and the Contracting Officer upon mutual agreement as to its accuracy and completeness. The Contractor shall protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference which their preservation may cause to the Contractor's work under the contract.

1.9 NOT USED

1.10 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings, plans and specifications which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the

Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.11 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

2 PART 2 PRODUCTS (NOT USED)

3 PART 3 EXECUTION

3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

The Contractor shall be responsible for obtaining and complying with all environmental permits and commitments required by Federal, State, Regional, and local environmental laws and regulations.

3.2 LAND RESOURCES

The Contractor shall confine all activities to areas defined by the drawings and specifications. Prior to the beginning of any construction, the Contractor shall identify any land resources to be preserved within the work area. Except in areas indicated on the drawings or specified to be cleared, the Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without approval. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. The Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs. Stone, soil, or other materials displaced into uncleared areas shall be removed by the Contractor.

3.2.1 Work Area Limits

Prior to commencing construction activities, the Contractor shall mark the areas that need not be disturbed under this contract. Isolated areas within the general work area which are not to be disturbed shall be marked or fenced. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, any markers shall be visible in the dark. The Contractor's personnel shall be knowledgeable of the purpose for marking and/or protecting particular objects.

3.2.2 Landscape

Trees, shrubs, vines, grasses, land forms and other landscape features indicated and defined on the drawings to be preserved shall be clearly identified by marking, fencing, or wrapping with boards, or any other approved techniques. The Contractor shall restore landscape features damaged or destroyed during construction operations outside the limits of the approved work area.

3.2.3 Erosion and Sediment Controls

The Contractor shall be responsible for providing erosion and sediment control measures in accordance with Federal, State, and local laws and regulations. The erosion and sediment controls selected and maintained by the Contractor shall be such that water quality standards are not violated as a result of the Contractor's construction activities. The area of bare soil exposed at any one time by construction operations should be kept to a minimum. The Contractor shall construct or install temporary and permanent erosion and sediment control best management practices (BMPs) as specified in this Contract. BMPs may include, but not be limited to, vegetation cover, stream bank stabilization, slope stabilization, silt fences, construction of terraces, interceptor channels, sediment traps, inlet and outfall protection, diversion channels, and sedimentation basins. The Contractor's best management practices shall also be in accordance with the National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention Plan (SWPPP) of this Contract. Any temporary measures shall be removed after the area has been stabilized.

3.2.4 Contractor Facilities and Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation approved. Erosion and sediment controls shall be provided for on-site borrow and spoil areas to prevent sediment from entering nearby waters. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas.

3.3 WATER RESOURCES

The Contractor shall monitor construction activities to prevent pollution of surface and ground waters. Toxic or hazardous chemicals shall not be applied to soil or vegetation unless otherwise indicated. All water areas affected by construction activities shall be monitored by the Contractor. For construction activities immediately adjacent to impaired surface waters, the Contractor shall be capable of quantifying sediment or pollutant loading to that surface water when required by State or Federally issued Clean Water Act permits.

3.3.1 Diversions, and Dewatering Operations

See SECTION 02220: DREDGING, EXCAVATION AND DISPOSAL

3.3.2 Stream Crossings

Stream crossings shall allow movement of materials or equipment without violating water pollution control standards of the Federal, State, and local governments. Construction of stream crossing structures shall be in compliance with Clean Water Act Section 404.

3.3.3 Wetlands

The Contractor shall not enter, disturb, destroy, or allow discharge of contaminants into any wetlands.

3.4 AIR RESOURCES

Equipment operation, activities, or processes performed by the Contractor shall be in accordance with all Federal and State air emission and performance laws and standards.

3.4.1 Particulates

Dust particles; aerosols and gaseous by-products from construction activities; and processing and preparation of materials, such as from asphalt batch plants; shall be controlled at all times, including weekends, holidays and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates which would cause the Federal, State, and local air pollution standards to be exceeded or which would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, baghouse, scrubbers, electrostatic precipitators or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp at all times. The Contractor must have sufficient, competent equipment available to accomplish these tasks. Particulate control shall be performed as the work proceeds and whenever a particulate nuisance or hazard occurs. The Contractor shall comply with all State and local visibility regulations.

3.4.2 Odors

Odors from construction activities shall be controlled at all times. The odors shall not cause a health hazard and shall be in compliance with State regulations and/or local ordinances.

3.4.3 Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize environment damage by noise. The Contractor shall comply with the provisions of the State of Alaska rules.

3.4.4 Burning

Burning will not be allowed on the project site unless specified in other sections of the specifications.

3.5 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

Disposal of wastes shall be as directed below, unless otherwise specified in other sections and/or shown on the drawings.

3.5.1 Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. Handling, storage, and disposal shall be conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste off Government property and dispose of it in compliance with Federal, State, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill shall be the minimum acceptable off-site solid waste disposal option. The Contractor shall verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate.

3.5.2 Chemicals and Chemical Wastes

Chemicals shall be dispensed ensuring no spillage to the ground or water. Periodic inspections of dispensing areas to identify leakage and initiate corrective action shall be performed and documented. This documentation will be periodically reviewed by the Government. Chemical waste shall be collected in corrosion resistant, compatible containers. Collection drums shall be monitored and removed to a staging or storage area when contents are within 6 inches of the top. Wastes shall be classified, managed, stored, and disposed of in accordance with Federal, State, and local laws and regulations.

3.5.3 Contractor Generated Hazardous Wastes/Excess Hazardous Materials

Hazardous wastes are defined in 40 CFR 261, or are as defined by applicable State and local regulations. Hazardous materials are defined in 49 CFR 171 - 178. The Contractor shall, at a minimum, manage and store hazardous waste in compliance with 40 CFR 262 and shall manage and store hazardous waste in accordance with the Project Office hazardous waste management plan. The Contractor shall take sufficient measures to prevent spillage of hazardous and toxic materials during dispensing. The Contractor shall segregate hazardous waste from other materials and wastes, shall protect it from the weather by placing it in a safe covered location, and shall take precautionary measures such as berming or other appropriate measures against accidental spillage. The Contractor shall be responsible for storage, describing, packaging, labeling, marking, and placarding of hazardous waste and hazardous material in accordance with 49 CFR 171 - 178, State, and local laws and regulations. The Contractor shall transport Contractor generated hazardous waste off Government property within 60 days in accordance with the Environmental Protection Agency and the Department of Transportation laws and regulations. The Contractor shall dispose of hazardous waste in compliance with Federal, State and local laws and regulations. Spills of hazardous or toxic materials shall be immediately reported to the Contracting Officer. Cleanup and cleanup costs due to spills shall be the Contractor's responsibility. The disposition of Contractor generated hazardous waste and excess hazardous materials are the Contractor's responsibility.

3.5.4 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel on the project site shall be in accordance with all Federal, State, and local laws and regulations.

3.5.5 Waste Water

Disposal of waste water shall be as specified below.

a. Waste water from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, forms, etc. shall not be allowed to enter water ways or to be discharged prior to being treated to remove pollutants. The Contractor shall dispose of the construction related waste water in accordance with all Federal, State, Regional and Local laws and regulations.

b. For discharge of ground water, the Contractor shall surface discharge in accordance with all Federal, State, and local laws and regulations.

3.6 RECYCLING AND WASTE MINIMIZATION

The Contractor shall participate in State and local government sponsored recycling programs. The Contractor is further encouraged to minimize solid waste generation throughout the duration of the project.

3.7 NON-HAZARDOUS SOLID WASTE DIVERSION REPORT

The Contractor shall maintain an inventory of non-hazardous solid waste diversion and disposal of construction and demolition debris. The Contractor shall submit a report to through the Contracting Officer on the first working day after each fiscal year quarter, starting the first quarter that non-hazardous solid waste has been generated. The following shall be included in the report:

- a. Construction and Demolition (C&D) Debris Disposed = _____ cubic yards or tons, as appropriate.
- b. Construction and Demolition (C&D) Debris Recycled = _____ cubic yards or tons, as appropriate.
- c. Total C&D Debris Generated = _____ cubic yards or tons, as appropriate.
- d. Waste Sent to Waste-To-Energy Incineration Plant (This amount should not be included in the recycled amount) = _____ cubic yards or tons, as appropriate.

3.8 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Existing historical, archaeological, and cultural resources within the Contractor's work area are shown on the drawings. The Contractor shall protect these resources and shall be responsible for their preservation during the life of the Contract. If during excavation or other construction activities any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.9 BIOLOGICAL RESOURCES

The Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The Contractor shall be responsible for the protection of threatened and endangered animal and plant species including their habitat in accordance with Federal, State, Regional, and local laws and regulations.

3.10 PREVIOUSLY USED EQUIPMENT

The Contractor shall clean all previously used construction equipment prior to bringing it onto the project site. The Contractor shall ensure that the equipment is free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. The Contractor shall consult with the USDA jurisdictional office for additional cleaning requirements.

3.11 MAINTENANCE OF POLLUTION FACILITIES

The Contractor shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.12 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel shall be trained in all phases of environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel prior to commencing construction activities. Additional meetings shall be conducted for new personnel and when site conditions change. The training and meeting agenda shall include: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, wetlands, and endangered species and their habitat that are known to be in the area.

3.13 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause: "Cleaning Up". The Contractor shall, unless otherwise instructed in writing by the Contracting Officer, obliterate all signs of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area seeded unless otherwise indicated.

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SECTION 01420

SOURCES FOR REFERENCE PUBLICATIONS

1 PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, e.g., ASTM B 564 Nickel Alloy Forgings. However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the organizations whose publications are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the sponsoring organization should be ordered from the source by title rather than by number.

DEPARTMENT OF THE ARMY (DA)

<http://www.adtdl.army.mil/atdls.html>

ENGINEERING MANUALS (EM)

USACE Publications Depot
Attn: CEIM-SP-D 2803 52nd
Avenue Hyattsville, MD
20781-1102
Ph: 301-394-0081

2 PART 2 - PRODUCTS (NOT APPLICABLE)

3 PART 3 - EXECUTION (NOT APPLICABLE)

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SECTION 01451

CONTRACTOR QUALITY CONTROL

1 PART 1 GENERAL

1.1 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

2 PART 2 PRODUCTS - NOT USED

3 PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction". The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

3.2 QUALITY CONTROL PLAN

3.2.1 General

The Contractor shall furnish for review by the Government, not later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.2 Contents of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.
- d. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- e. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
- f. Reporting procedures, including proposed reporting formats.
- g. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in its CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 30 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 General

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a construction person with a minimum of 8 years in related work. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as project superintendent in addition to quality control. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

3.4.3 Additional Requirement

In addition to the above experience and/or education requirements, the CQC

System Manager or the principal member of the CQC staff shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered at the following location:

Associated General Contractors
of Alaska
4041 B Street
Anchorage, Alaska
(907) 561-5354

3.4.4 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

3.5.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications.
- b. A review of the contract drawings.
- c. A check to assure that all equipment has been submitted and approved.
- d. Review of provisions that have been made to provide required control inspection.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required equipment to assure that it is on hand.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work

including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.

i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. Discussion of the initial control phase.

k. The Government shall be notified at least 48 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.5.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.5.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all

deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not conceal non-conforming work.

3.5.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if the quality of on-going work is unacceptable, if there are changes in the applicable CQC staff, onsite production supervision or work crew, if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.6 COMPLETION INSPECTION

3.6.1 Punch-Out Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the Special Contract Requirement entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQC System Manager shall conduct an inspection of the work for items which do not conform to the approved drawings and specifications. Such deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the work is ready for the Government Pre-Final inspection.

3.6.2 Pre-Final Inspection

The Government will perform this inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.6.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at this inspection. Additional Government personnel may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final

acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

3.7 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Control activities performed with results and references to specifications/drawings requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
- e. Off-site surveillance activities, including actions taken.
- f. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- g. Instructions given/received and conflicts in plans and/or specifications.
- h. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.8 SAMPLE FORMS

Sample forms enclosed at the end of this section.

3.9 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.10 ATTACHMENT CQC REPORT

-- End of Section --

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CONTRACTOR'S QUALITY CONTROL REPORT (CQC) (ER 1180-1-6)		DATE:	REPORT NO.
CONTRACT NO. AND NAME OF CONTRACTOR:		DESCRIPTION AND LOCATION OF THE WORK:	
WEATHER CLASSIFICATION: CLASS A No interruption of any kind from weather conditions occurring on this or previous shifts. CLASS B Weather occurred during this shift that caused a complete stoppage of all work. CLASS C Weather occurred during this shift that caused a partial stoppage of work. CLASS D Weather overhead excellent or suitable during shift. Work completely stopped due to results of previous weather. CLASS E Weather overhead excellent or suitable during shift but work partially stopped due to previous adverse manner. OTHER Explain		CLASSIFICATION: CLASS _____ TEMPERATURE (°F): MAX _____ MIN _____ PRECIPITATION: INCHES _____	
CONTRACTOR/SUBCONTRACTORS AND AREA OF RESPONSIBILITY FOR WORK PERFORMED TODAY: (Attach list of items of equipment either idle or working as appropriate.) a. _____ b. _____ c. _____ d. _____ e. _____ f. _____			
1. WORK PERFORMED TODAY: (Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in Table above.) 			
2. TYPE AND RESULTS OF INSPECTION: (Indicate whether P-Preparatory, I - Initial, F- Follow-up and include satisfactory work completed or deficiencies with action to be taken.) 			
3. TESTS REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS: 			

4. VERBAL INSTRUCTIONS RECEIVED: (List any instructions given by Government personnel on construction deficiencies, retesting required, etc., with action(s) to be taken.)

5. REMARKS: (Cover any conflicts in plans, specifications, or instructions: Acceptability of incoming materials; offsite surveillance activities; progress of work, delays, causes and extent thereof; days of no work with reason for same.)

6. SAFETY: (Include any infractions of approved safety plan, safety manual, or instructions from Government personnel. Specify corrective action taken.)

CONTRACTOR: _____

CONTRACTOR'S CERTIFICATION: I certify that the above report is complete and correct and that all materials and equipment used, work performed, and tests conducted during this reporting period were in strict compliance with the contract plans and specifications except as noted above.

CONTRACTOR'S APPROVED AUTHORIZED REPRESENTATIVE

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SECTION 01525

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SECTION 01525

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

1 PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z359.1 (1992; R 1999) Safety Requirements for
Personal Fall Arrest Systems, Subsystems
and Components

ASME INTERNATIONAL (ASME)

ASME B30.22 (2000) Articulating Boom Cranes

ASME B30.5 (2000) Mobile and Locomotive Cranes

ASME B30.8 (2000) Floating Cranes and Floating Derricks

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (2002) Portable Fire Extinguishers

NFPA 241 (2000) Safeguarding Construction, Alteration,
and Demolition Operations

NFPA 51B (2003) Fire Prevention During Welding, Cutting,
and Other Hot Work

NFPA 70 (2002) National Electrical Code

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2003) Safety and Health Requirements
Manual

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910.94 Ventilation

29 CFR 1919 Gear Certification

29 CFR 1926 Safety and Health Regulations for
Construction

29 CFR 1926.500 Fall Protection

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G"

designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G

Activity Hazard Analysis (AHA); G

Crane Critical Lift Plan; G

Crane Work Plan; G

Proof of qualification for Crane Operators; G

SD-06 Test Reports

Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

Accident Reports

Monthly Exposure Reports

Regulatory Citations and Violations

Crane Reports

SD-07 Certificates

Certificate of Compliance (Crane)

Third Party Certification of Barge-Mounted Mobile Cranes

Submit one copy of each permit attached to each Daily Quality Control Report.

1.3 DEFINITIONS

a. Associate Safety Professional (ASP). An individual who is currently certified as an ASP by the Board of Certified Safety Professionals.

b. Certified Construction Health & Safety Technician (CHST). An individual who is currently certified as a CHST by the Board of Certified Safety Professionals.

c. Certified Industrial Hygienist (CIH). An individual who is currently certified as a CIH by the American Board of Industrial Hygiene.

d. Certified Safety Professional (CSP). An individual who is currently certified as a CSP by the Board of Certified Safety Professionals.

e. Certified Safety Trained Supervisor (STS). An individual who is currently certified as an STS by the Board of Certified Safety Professionals.

f. Competent Person for Fall Protection. A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.

g. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.

h. Low-slope roof. A roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

i. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even though provided by a physician or registered personnel.

j. Multi-Employer Work Site (MEWS). A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors.

k. Operating Envelope. The area surrounding any crane. Inside this "envelope" is the crane, the operator, riggers, rigging gear between the hook and the load, the load and the crane's supporting structure (ground, rail, etc.).

l. Qualified Person for Fall Protection. A person with a recognized degree or professional certificate, extensive knowledge, training and experience in the field of fall protection who is capable of performing design, analysis, and evaluation of fall protection systems and equipment.

m. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:

- (1) Death, regardless of the time between the injury and death, or the length of the illness;
- (2) Days away from work;
- (3) Restricted work;
- (4) Transfer to another job;
- (5) Medical treatment beyond first aid;
- (6) Loss of consciousness; or
- (7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

n. Site Safety and Health Officer (SSHO). The superintendent or other qualified or competent person who is responsible for the on-site safety and health required for the project. The Contractor quality control (QC) person can be the SSHO on this project.

o. "USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.

p. Weight Handling Equipment (WHE) Accident. A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; and collision, including unplanned contact between the load, crane, and/or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over, etc.).

1.4 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with USACE EM 385-1-1, and all applicable federal, state, and local laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply.

1.5 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The SSHO shall meet the following requirements:

Level 3:

A minimum of 5 years safety work on similar projects. 30-hour OSHA construction safety class or equivalent within the last 5 years.

An average of at least 24 hours of formal safety training each year for the past 5 years. Competent person training as needed.

1.6.1.2 Crane Operators

Crane operators shall meet the requirements in USACE EM 385-1-1, Section 16 and Appendix G. In addition, for mobile cranes with Original Equipment

Manufacturer (OEM) rated capacities of 50,000 pounds or greater, crane operators shall be designated as qualified by a source that qualifies crane operators (i.e., union, a government agency, or an organization that tests and qualifies crane operators). Proof of current qualification shall be provided.

1.6.2 Personnel Duties

1.6.2.1 Site Safety and Health Officer (SSHO)/Superintendent

- a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Safety inspection logs shall be attached to the Contractor's daily quality control report.
- b. Conduct mishap investigations and complete required reports. Maintain the OSHA Form 300 and Daily Production reports for prime and sub-contractors.
- c. Maintain applicable safety reference material on the job site.
- d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.
- e. Implement and enforce accepted APPS and AHAs.
- f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.
- g. Ensure sub-contractor compliance with safety and health requirements. Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.6.2.2 SSHO Duties

- a. Perform safety and occupational health management, surveillance, inspections, and safety enforcement for the project.
- b. Perform as the safety and occupational health "competent person" as defined by USACE EM 385-1-1.
- c. Be on-site whenever work or testing is being performed.
- d. Conduct and document safety inspections.

1.6.3 Meetings

1.6.3.1 Preconstruction Conference

- a. The Contractor will be informed, in writing, of the date of the preconstruction conference. The purpose of the preconstruction conference is for the Contractor and the Contracting Officer's representatives to become acquainted and explain the functions and operating procedures of their respective organizations and to reach mutual understanding relative to the administration of the overall project's Accident Prevention Plan (APP) before the initiation of work.

b. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

c. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

d. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

1.6.3.2 Weekly Safety Meetings

Conduct weekly safety meetings at the project site for all employees. The Contracting Officer will be informed of the meeting in advance and be allowed attendance. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.6.3.3 Work Phase Meetings

The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection. The analysis should be used during daily inspections to ensure the implementation and effectiveness of safety and health controls.

1.7 TRAINING

1.7.1 New Employee Indoctrination

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 Periodic Training

Provide Safety and Health Training in accordance with USACE EM 385-1-1 and the accepted APP. Ensure all required training has been accomplished for all onsite employees.

1.7.3 Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected employees to include a review of the AHA to be implemented.

1.8 ACCIDENT PREVENTION PLAN (APP)

The Contractor shall use a qualified person to prepare the written

site-specific APP. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan". Where a paragraph or subparagraph element is not applicable to the work to be performed indicate "Not Applicable" next to the heading. Specific requirements for some of the APP elements are described below at paragraph 1.8.1. The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer and any designated CSP and/or CIH.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. The Contracting Officer reviews and comments on the Contractor's submitted APP and accepts it when it meets the requirements of the contract provisions.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any unforeseen hazard become evident during the performance of work, the project superintendent shall inform the Contracting Officer, both verbally and in writing, for resolution as soon as possible. In the interim, all necessary action shall be taken by the Contractor to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment. Copies of the accepted plan will be maintained at the Resident Engineer's office and at the job site. The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 Contents

In addition to the requirements outlined in Appendix A of USACE EM 385-1-1, the following is required:

a. Names and qualifications (resumes including education, training, experience and certifications) of all site safety and health personnel designated to perform work on this project to include the designated site safety and health officer and other competent and qualified personnel to be used such as CSPs, CIHs, STSs, CHSTs. The duties of each position shall be specified.

b. Qualifications of competent and of qualified persons. As a minimum, competent persons shall be designated and qualifications submitted for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; personal protective equipment and clothing to include selection, use and maintenance.

c. Health Hazard Control Program. The Contractor shall designate a competent and qualified person to establish and oversee a Health Hazard Control Program in accordance with USACE EM 385-1-1, Section 6. The program shall ensure that employees, on-site Government representatives, and others, are not adversely exposed to chemical, physical and biological agents and that necessary controls and protective actions are instituted to ensure health.

d. Crane Critical Lift Plan. Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. The plan shall be submitted 15 calendar days prior to on-site work and include the requirements of USACE EM 385-1-1, paragraph 16.c.18. and the following:

(1) For lifts of personnel, the plan shall demonstrate compliance with the requirements of 29 CFR 1926.550(g).

(2) For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.

e. Alcohol and Drug Abuse Plan

(1) Describe plan for random checks and testing with pre-employment screening in accordance with the DFAR Clause subpart 252.223-7004, "Drug Free Work Force."

(2) Description of the on-site prevention program

f. Fall Protection and Prevention (FP&P) Plan. The plan shall be site specific and address all fall hazards in the work place and during different phases of construction. It shall address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 1.8 m (6 feet). A qualified person for fall protection shall prepare and sign the plan. The plan shall include fall protection and prevention systems, equipment and methods employed for every phase of work, responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Fall Protection and Prevention Plan shall be revised every six months for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. The accepted Fall Protection and Prevention Plan shall be kept and maintained at the job site for the duration of the project. The Fall Protection and Prevention Plan shall be included in the Accident Prevention Plan (APP).

g. Training Records and Requirements. List of mandatory training and

certifications which are applicable to this project (e.g. explosive actuated tools, confined space entry, fall protection, crane operation, vehicle operator, forklift operators, personal protective equipment); list of requirements for periodic retraining/certification; outline requirements for supervisory and employee safety meetings.

h. Crane Work Plan. The Contractor shall provide a crane work plan to the Contracting Officer for acceptance. The crane work plan shall include the specific model of each crane and a drawing identifying their locations (exact), the dimensions, wheel sizes, number of wheels, wheel spacing, tire pressure(s), number of axles, axle spacing, minimum wheel load to be exerted during operations and maximum outrigger load to be exerted during operations. The Contractor shall allow at least 10 working days for acceptance/non-acceptance of the crane work plan. No crane operations shall begin prior to written acceptance of the crane work plan by the Government. Resident Engineer shall be the government approving authority.

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1. Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHA as amendments to the APP. An AHA will be developed by the Contractor for every operation involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform work. The analysis must identify and evaluate hazards and outline the proposed methods and techniques for the safe completion of each phase of work. At a minimum, define activity being performed, sequence of work, specific safety and health hazards anticipated, control measures (to include personal protective equipment) to eliminate or reduce each hazard to acceptable levels, equipment to be used, inspection requirements, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall protection methods used. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include requirements for safeguarding excavations. An activity requiring an AHA shall not proceed until the AHA has been accepted by the Contracting Officer's representative and a meeting has been conducted by the Contractor to discuss its contents with everyone engaged in the activity, including on-site Government representatives. The Contractor shall document meeting attendance at the preparatory, initial, and follow-up phases of quality control inspection. The AHA shall be continuously reviewed and, when appropriate, modified to address changing site conditions or operations. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

Activity hazard analyses shall be updated as necessary to provide an effective response to changing work conditions and activities. The on-site superintendent, site safety and health officer and competent persons used to develop the AHAs, including updates, shall sign and date the AHAs before they are implemented.

The activity hazard analyses shall be developed using the project schedule as the basis for the activities performed. Any activities listed on the

project schedule will require an AHA. The AHAs will be developed by the contractor, supplier or subcontractor and provided to the prime contractor for submittal to the Contracting Officer.

1.10 DISPLAY OF SAFETY INFORMATION

Within 1 calendar day after commencement of work, erect a safety bulletin board at the job site. The following information shall be displayed on the safety bulletin board in clear view of the on-site construction personnel, maintained current, and protected against the elements and unauthorized removal:

- a. Map denoting the route to the nearest emergency care facility.
- b. Emergency phone numbers.
- c. Copy of the most up-to-date APP.
- d. Current AHA(s).
- e. OSHA 300A Form.
- f. OSHA Safety and Health Protection-On-The-Job Poster.
- g. Hot work permit.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors shall arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.13 REPORTS

1.13.1 Accident Reports

a. For recordable injuries and illnesses, and property damage accidents resulting in at least \$2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within 1 calendar day of the accident. The Contracting Officer will provide copies of any required or special forms.

b. For any weight handling equipment accident (including rigging gear accidents) the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the WHE Accident Report (Crane and Rigging Gear) form and provide the report to the Contracting Officer within 30 calendar days of the accident. Crane operations shall not proceed until cause is determined and corrective actions have been implemented to the satisfaction of the contracting officer. The Contracting Officer will provide a blank copy of the accident report form.

1.13.2 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000, or any weight handling equipment accident. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

1.13.3 Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.

1.13.4 Regulatory Citations and Violations

Contact the Contracting Officer immediately of any OSHA or other regulatory agency inspection or visit, and provide the Contracting Officer with a copy of each citation, report, and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer.

1.13.5 Crane Reports

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

1.13.6 Certificate of Compliance

The Contractor shall provide a Certificate of Compliance for each crane entering an activity under this contract (see Contracting Officer for a blank certificate). Certificate shall state that the crane and rigging gear meet applicable OSHA regulations (with the Contractor citing which OSHA regulations are applicable, e.g., cranes used in construction, demolition, or maintenance shall comply with 29 CFR 1926 and USACE EM 385-1-1 section 16 and Appendix H. Certify on the Certificate of Compliance that the crane operator(s) is qualified and trained in the operation of the crane to be used. The Contractor shall also certify that all of its crane operators working on the DOD activity have been trained in the proper use of all safety devices (e.g., anti-two block devices). These certifications shall be posted on the crane.

1.13.7 Third Party Certification of Barge-Mounted Mobile Cranes

Barge-mounted mobile cranes shall be certified in accordance with 29 CFR 1919 by an OSHA accredited person.

1.14 HOT WORK

The Contractor will provide at least two (2) twenty (20) pound 4A:20 BC rated extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in accordance with NFPA 51B and

remain on-site for a minimum of 30 minutes after completion of the task or as specified on the hot work permit.

a. Oil painting materials (paint, brushes, empty paint cans, etc.), and all flammable liquids shall be removed from the facility at quitting time. All painting materials and flammable liquids shall be stored outside in a suitable metal locker or box and will require re-submittal with non-hazardous materials.

b. Accumulation of trays, paper, shavings, sawdust, boxes and other packing materials shall be removed from the facility at the close of each workday and such material disposed of in the proper containers located away from the facility.

c. The storage of combustible supplies shall be a safe distance from structures.

d. Area outside the facility undergoing work shall be cleaned of trash, paper, or other discarded combustibles at the close of each workday.

e. All portable electric devices (saws, sanders, compressors, extension chord, lights, etc.) shall be disconnected at the close of each workday. When possible, the main electric switch in the facility shall be deactivated.

f. When starting work in the facility, Contractors shall require their personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency City Fire Department phone number.

2 PART 2 PRODUCTS

2.1 FALL PROTECTION ANCHORAGE

Fall protection anchorage, conforming to ANSI Z359.1, installed under the supervision of a qualified person in fall protection, shall be left in place for continued customer use and so identified by signage stating the capacity of the anchorage (strength and number of persons who may be tied-off to it at any one time).

3 PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

The Contractor shall comply with USACE EM 385-1-1, NFPA 241, the APP, the AHA, Federal and/or State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard shall prevail.

3.1.1 Hazardous Material Use

Each hazardous material must receive approval prior to being brought onto the job site prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material. Any work or storage involving hazardous chemicals or materials must be done in a manner that will not expose Government or Contractor employees to any unsafe or unhealthful conditions. Adequate protective measures must be taken to prevent Government or Contractor employees from being exposed to any hazardous condition that could result from the work or storage. The Prime Contractor shall keep a complete inventory of hazardous materials brought onto the work-site. Approval by the

Contracting Officer of protective measures and storage area is required prior to the start of the work.

3.1.2 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates and lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

3.1.3 Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and non-friable asbestos. If material not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING

Contractors are required to apply for utility outages at least 15 days in advance. As a minimum, the request should include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved, and prior to beginning work on the utility system requiring shut down, the Contractor shall attend a pre-outage coordination meeting with the Contracting Officer and the City Utilities Department to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.

3.3 FALL HAZARD PROTECTION AND PREVENTION PROGRAM

The Contractor shall establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. The program shall include company policy, identify responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and escape procedures.

3.3.1 Training

The Contractor shall institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, the Contractor shall provide training for each employee who might be exposed to fall hazards. A competent person for fall protection shall provide the training. Training requirements shall be in accordance with USACE EM 385-1-1, section 1.A.16.

3.3.2 Fall Protection Equipment

The Contractor shall enforce use of the fall protection equipment designated for each specific work activity in the Fall Protection and Prevention Plan and/or AHA at all times when an employee is on a surface 1.8 m (6 feet) or more above lower levels. Fall protection systems such as guardrails, personnel fall arrest system, safety nets, etc., are required when working within 1.8m (6 feet) of any leading edge. In addition to the required fall protection systems, safety skiff, personal floatation devices, life rings etc., are required when working above or next to water in accordance with USACE EM 385-1-1, paragraphs 05.I. and 05.H. Personal fall arrest systems are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall arrest systems are required when operating other equipment such as scissor lifts if the work platform is capable of being positioned outside the wheelbase. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, or travel. Fall protection must comply with 29 CFR 1926.500, Subpart M and USACE EM 385-1-1.

3.3.2.1 Personal Fall Arrest Equipment

Personal fall arrest equipment, systems, subsystems, and components shall meet ANSI Z359.1. Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest device. Body belts may only be used as a positioning device system (for uses such as steel reinforcing assembly and in addition to an approved fall arrest system). Harnesses shall have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Only locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber. The maximum free fall distance when using fall arrest equipment shall not exceed 1.8 m (6 feet). The total fall distance and any swinging of the worker (pendulum-like motion) that can occur during a fall shall always be taken into consideration when attaching a person to a fall arrest system.

3.3.3 Fall Protection for Roofing Work

Fall protection controls shall be implemented based on the type of roof being demolished and work being performed. The roof area to be accessed shall be evaluated for its structural integrity including weight-bearing capabilities for the projected loading.

a. Low Sloped Roofs:

(1) For work within 1.8 m (6 feet) of an edge, on low-slope roofs, personnel shall be protected from falling by use of personal fall arrest systems, guardrails, or safety nets.

(2) For work greater than 1.8 m (6 feet) from an edge, warning lines shall be erected and installed in accordance with 29 CFR 1926.500 and USACE EM 385-1-1.

3.3.4 Safety Nets

If safety nets are used as the selected fall protection system on the project, they shall be provided at unguarded work places, leading edge work or when working over water, machinery, dangerous operations or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, fall arrest systems or restraint/positioning systems are impractical. Safety nets shall be tested immediately after installation with a drop test of 181.4 kg (400 pounds) dropped from the same elevation a person might fall, and every six months thereafter.

3.3.5 Existing Anchorage

Existing anchorages, to be used for attachment of personal fall arrest equipment, shall be certified (or re-certified) by a qualified person for fall protection in accordance with ANSI Z359.1. Existing horizontal lifeline anchorages shall be certified (or re-certified) by a registered professional engineer with experience in designing horizontal lifeline systems.

3.3.6 Horizontal Lifelines

Horizontal lifelines shall be designed, installed, certified and used under the supervision of a qualified person for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 (29 CFR 1926.500).

3.3.7 Guardrail Systems

Guardrails shall consist of top and mid-rails, post and toe boards. The top edge height of standard railing must be 42 inches plus or minus 3 inches above the walking/working level. When mid-rails are used, they must be installed at a height midway between the top edge of the guardrail system and the walking/working level. Posts shall be placed no more than 8 feet apart (29 CFR 1926.500 and USACE EM 385-1-1).

3.3.8 Rescue and Evacuation Procedures

When personal fall arrest systems are used, the contractor must ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. A Rescue and Evacuation Plan shall be prepared by the contractor and include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. The Rescue and Evacuation Plan shall be included in the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP).

3.4 SCAFFOLDING

Employees shall be provided with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Access to scaffold platforms greater than 6 m (20 feet) in height shall be accessed by use of a scaffold stair system. Vertical ladders commonly provided by scaffold system manufacturers shall not be used for accessing scaffold platforms greater than 6 m (20 feet) in height. The use of an adequate gate is required. Contractor shall ensure that employees are qualified to perform scaffold erection and dismantling. Do not use scaffold without the capability of supporting at least four times the maximum intended load or without appropriate fall protection as delineated in the accepted fall protection and prevention plan. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward. Special care shall be given to ensure scaffold systems are not overloaded. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material is prohibited. The first tie-in shall be at the height equal to 4 times the width of the smallest dimension of the scaffold base. Work platforms shall be placed on mud sills. Scaffold or work platform erectors shall have fall protection during the erection and dismantling of scaffolding or work platforms that are more than six feet. Delineate fall protection requirements when working above

six feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

3.4.1 Stilts

The use of stilts for gaining additional height in construction, renovation, repair or maintenance work is prohibited.

3.5 EQUIPMENT

3.5.1 Material Handling Equipment

- a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.
- b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.
- c. Operators of forklifts or power industrial trucks shall be licensed in accordance with OSHA.

3.5.2 Weight Handling Equipment

- a. Cranes must be equipped with:
 - (1) Load indicating devices (LIDs) and a boom angle or radius indicator or load moment indicating devices (LMIs).
 - (2) Anti-two block prevention devices.
 - (3) Boom hoist hydraulic relief valve, disconnect, or shutoff (stops hoist when boom reaches a predetermined high angle).
 - (4) Boom length indicator (for telescoping booms).
 - (5) Device to prevent uncontrolled lowering of a telescoping hydraulic boom.
 - (6) Device to prevent uncontrolled retraction of a telescoping hydraulic boom.
 - (7) Wind indicating device.
 - (8) Drum rotation indicator.
 - (9) Barge mounted mobile cranes shall be equipped with a load indicating device, a wind indicating device and a marine type list and trim indicator readable in one-half degree increments.
- b. The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.
- c. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person (as defined in ASME B30.5). All testing shall be performed in accordance with the manufacturer's recommended procedures.

d. The Contractor shall comply with ASME B30.5 for mobile cranes, ASME B30.22 for articulating boom cranes, and ASME B30.8 for floating cranes and floating derricks.

e. The presence of Government personnel does not relieve the Contractor of an obligation to comply with all applicable safety regulations. The Government will investigate all complaints of unsafe or unhealthful working conditions received in writing from Contractor employees, federal civilian employees, or military officers.

f. Each load shall be rigged/attached independently to the hook/master-link in such a fashion that the load cannot slide or otherwise become detached. Christmas-tree lifting (multiple rigged materials) is not allowed.

g. Under no circumstances shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.

h. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11 and ASME B30.5 or ASME B30.22 as applicable.

i. Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.

j. A fire extinguisher having a minimum rating of 10BC and a minimum nominal capacity of 5lb of extinguishing agent shall be available at all operator stations or crane cabs. Portable fire extinguishers shall be inspected, maintained, and recharged as specified in NFPA 10, Standard for Portable Fire Extinguishers.

k. All employees shall be kept clear of loads about to be lifted and of suspended loads.

l. A weight handling equipment operator shall not leave his position at the controls while a load is suspended.

m. The Contractor shall use cribbing when performing lifts on outriggers.

n. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

o. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.

p. A substantial and durable rating chart containing legible letters and figures shall be provided with each crane and securely mounted onto the crane cab in a location allowing easy reading by the operator while seated in the control station.

q. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.

r. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.

s. The Contractor shall certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

3.5.3 Equipment and Mechanized Equipment

a. Equipment shall be operated by designated qualified operators. Proof of qualifications shall be kept on the project site for review.

b. Manufacture specifications or owner's manual for the equipment shall be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1. Such additional safety precautions or requirements shall be incorporated into the AHAs.

c. Equipment and mechanized equipment shall be inspected in accordance with manufacturer's recommendations for safe operation by a competent person prior to being placed into use.

d. Daily checks or tests shall be conducted and documented on equipment and mechanized equipment by designated competent persons.

3.6 EXCAVATIONS

The competent person for excavations performed as a result of contract work shall be on-site when excavation work is being performed, and shall inspect, and document the excavations daily prior to entry by workers. The competent person must evaluate all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly. The competent person shall perform soil classification in accordance with 29 CFR 1926.

3.6.1 Utility Locations

Prior to digging, the appropriate digging permit must be obtained. All underground utilities in the work area must be positively identified by a private utility locating service in addition to any city locating service and coordinated with the city utility department. Any markings made during the utility investigation must be maintained throughout the contract.

3.6.2 Utility Location Verification

The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. Digging within 0.61 m (2 feet) of a known utility must not be performed by means of mechanical equipment; hand digging shall be used. If construction is parallel to an existing utility the utility shall be exposed by hand digging every 30.5 m (100 feet) if parallel within 1.5 m (5 feet) of the excavation.

3.6.3 Utilities with Concrete Slabs

Utilities located within concrete slabs or pier decks, and the like are extremely difficult to identify. The location must be coordinated with city utility department in addition to a private locating service. Outages on system utilities shall be used in circumstances where concrete chipping, saw cutting, or core drilling is required and utilities are unable to be completely identified.

3.6.4 Shoring Systems

Trench and shoring systems must be identified in the accepted safety plan and AHA. Manufacture tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding shall have the registered professional engineer stamp, specifications, and tabulated data. Extreme care must be used when excavating near direct burial electric underground cables.

3.6.5 Trenching Machinery

Trenching machines with digging chain drives shall be operated only when the spotters/laborers are in plain view of the operator. Operator and spotters/laborers shall be provided training on the hazards of the digging chain drives with emphasis on the distance that needs to be maintained when the digging chain is operating. Documentation of the training shall be kept on file at the project site.

3.7 ELECTRICAL

3.7.1 Conduct of Electrical Work

Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the Contracting Officer and Station Utilities for identification. The Contracting Officer will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by the NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. In addition, provide electrical arc flash protection for personnel as required. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA.

3.7.2 Portable Extension Cords

Portable extension cords shall be sized in accordance with manufacturer ratings for the tool to be powered and protected from damage. All damaged extension cords shall be immediately removed from service. Portable extension cords shall meet the requirements of NFPA 70.

3.8 CRYSTALLINE SILICA

Grinding, abrasive blasting, and foundry operations of construction materials containing crystalline silica shall comply with OSHA regulations, such as 29 CFR 1910.94, and USACE EM 385-1-1, Appendix C. The Contractor shall develop and implement effective exposure control and elimination procedures to include dust control systems, engineering controls, and establishment of work area boundaries, as well as medical surveillance, training, air monitoring, and personal protective equipment.

3.9 HOUSEKEEPING

3.9.1 Clean-Up

All debris in work areas shall be cleaned up daily or more frequently if necessary. Construction debris may be temporarily located in an approved location; however, garbage accumulation must be removed each day.

3.9.2 Falling Object Protection

All areas must be barricaded to safeguard employees. When working overhead, barricade the area below to prevent entry by unauthorized employees. Construction warning tape and signs shall be posted so they are clearly visible from all possible access points. When employees are working overhead all tools and equipment shall be secured so that they will not fall. When using guardrail as falling object protection, all openings shall be small enough to prevent passage of potential falling objects.

-- End of Section --

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SECTION 02222

MAINTENANCE DREDGING

SECTION 02222

MAINTENANCE DREDGING

1 PART 1 - GENERAL

1.1 WORK COVERED

Dredging shall include removal and disposal of all material as specified herein or indicated on the drawings. All dredging and disposal shall be accomplished in accordance with EM 1110-2-5025, *Dredging and Dredged Material Disposal*.

1.2 CHARACTER OF MATERIALS

1.2.1 Area A, B, C, D, and E

Areas A, B, C, and D, as shown on the drawings, are composed primarily of silt, clay, and sand in various proportions. Deposits vary from loose to very-dense material. Debris such as wire, cable, steel rails, concrete anchor blocks, steel drill casing, equipment from ship decks, scrap iron and chunks of ice or frozen silt may be encountered. Previous dredging experience indicates that the material above the maximum pay line consists primarily of firm, cohesive sandy-silty-clay or sandy-clayey-silt. A relatively coarse sandy gravel formation of varying thickness has been encountered below the maximum pay-line. Previous dredging in area A has been accomplished to a depth not lower than -37 feet MLLW. Undisturbed stiff to very stiff blue-gray clay, dense to very dense sands, and gravelly sands may be encountered below the maximum pay line. Previous dredging in areas B, C, D has been accomplished to a depth generally not lower than -39 feet MLLW. The material has stuck to the sides of the dump scows and hopper bins. Some mechanical means of dislodging the material may be required. Additional data showing previous dredging records are available for examination in the office of the Alaska District Engineer. Local, minor variations and some debris are to be expected, and if encountered shall not be considered materially different within the scope of DIFFERING SITE CONDITIONS Clause of the CONTRACT CLAUSES. Any cobbles, boulders, and other debris dropped by winter ice pack shall be removed. Any recoverable debris shall be hauled to a suitable disposal facility.

1.2.2 Material Properties

Gradations from previous dredging operations show the material above the maximum pay-line to be sandy-silty-clay or sandy-clayey-silt with low plasticity (ML) and 90 to 95 percent by weight of the material passing the No. 200 sieve. Dry densities were determined to be between 85 and 105 pounds per cubic foot and moisture content to be 20 to 25 percent.

2 PART 2 - PRODUCTS (NOT APPLICABLE)

3 PART 3 - EXECUTION

3.1 DREDGING

3.1.1 General

All dredging shall be performed within the dredging limits to the depths and grades shown on the drawings, and established by the Contracting Officer subsequent to the pre-dredge survey according to SECTION 01016, SPECIAL ITEMS, paragraph SURVEYS. Any contours shown on the drawings are approximate. Dredging within 4 feet of any structure will not be allowed. Piling stubs may be encountered on the slope between Port/T.A.M. S. Station 30+12 and Station 33+38. If encountered, any such pile stubs shall be safely removed and hauled to a suitable disposal facility at no additional cost to the Government.

3.1.2 Excessive Dredging

If the Contracting Officer determines that over-dredging results in incipient danger to the foundations of proposed or adjacent structures, the Contractor will be required to restore such dredged material with material approved by the Contracting Officer to the established limits of project dredging without additional cost to the Government. The Contractor shall obtain the backfill materials from its own source.

3.2 DISPOSAL OF DREDGED MATERIALS

3.2.1 Disposal Operations

Except as otherwise authorized by the Contracting Officer in writing, no dumping of materials dredged by clamshell shall be done unless a representative of the Contracting Officer is present at the time. Any material dredged by clamshell that is deposited without a representative of the Contracting Officer present will not be paid for. The Contractor shall assume all risks in dredged material disposal operations. Any material that is deposited elsewhere than in places designated or approved by the Contracting Officer will not be paid for and the Contractor may be required to remove such misplaced material and deposit it where directed, at its expense.

3.2.2 Government-Furnished Disposal Area

The excavated material shall be transported and deposited a minimum of 3,000 feet from the face of the Port or the projection thereof as shown on the contract drawings, unless an alternate disposal area is approved by the Contracting Officer. The top of the dredged material in the disposal area shall not be higher than -45 feet MLLW.

3.3 ATTACHMENTS

-- End of Section --